

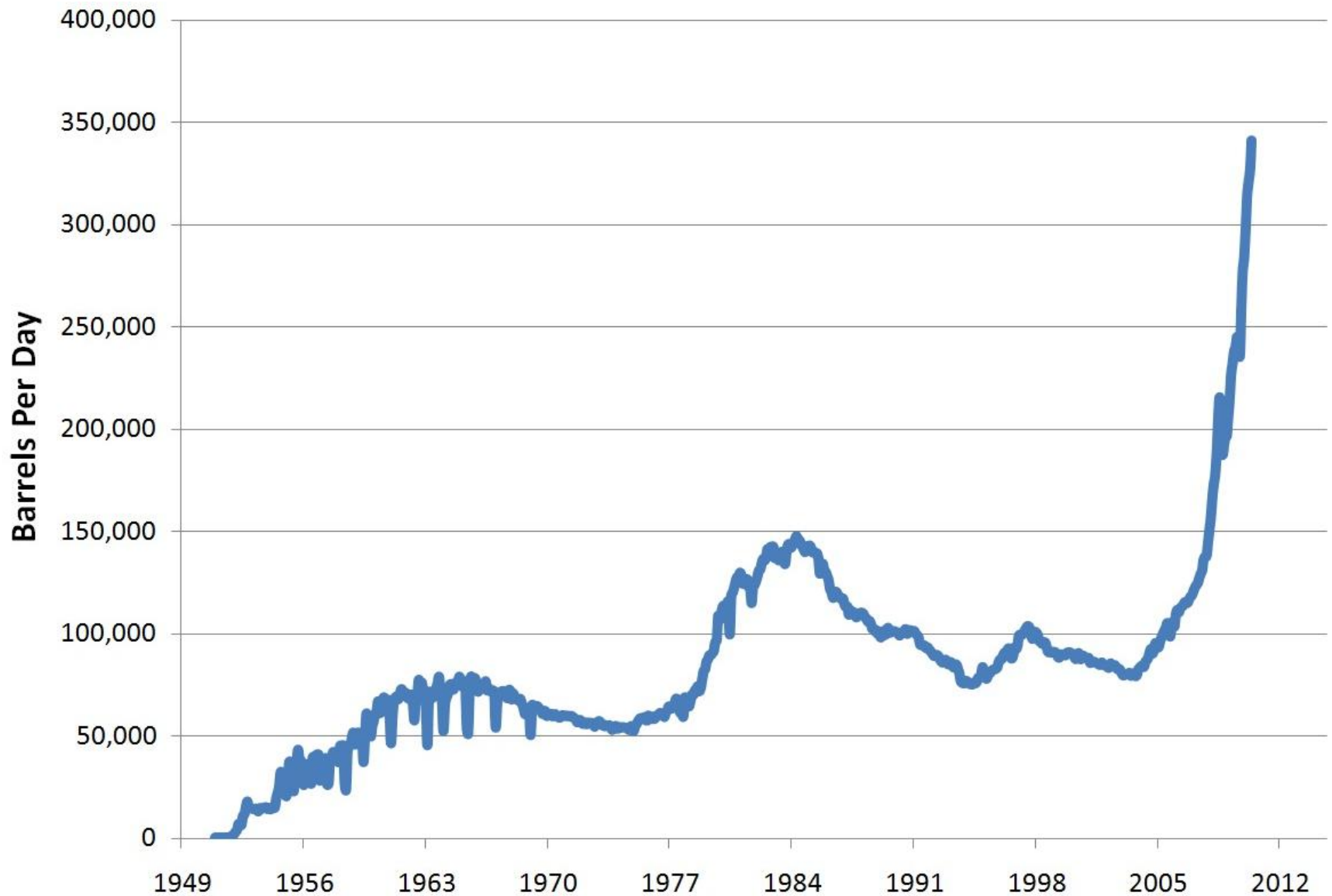
# **North Dakota Pipeline Authority**

**Legislative Briefings**

**Justin J. Kringstad**

**December 13-15, 2010**

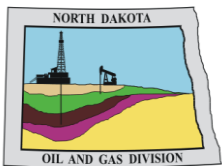
# North Dakota Crude Oil



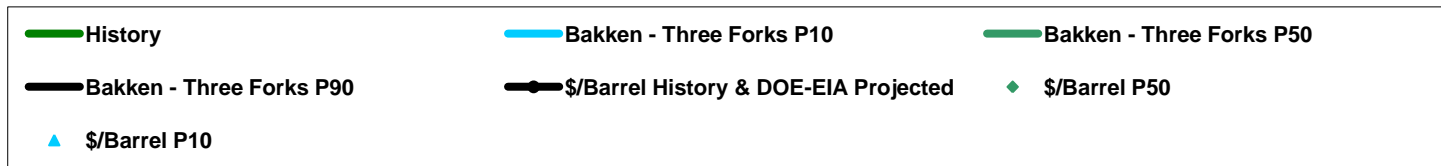
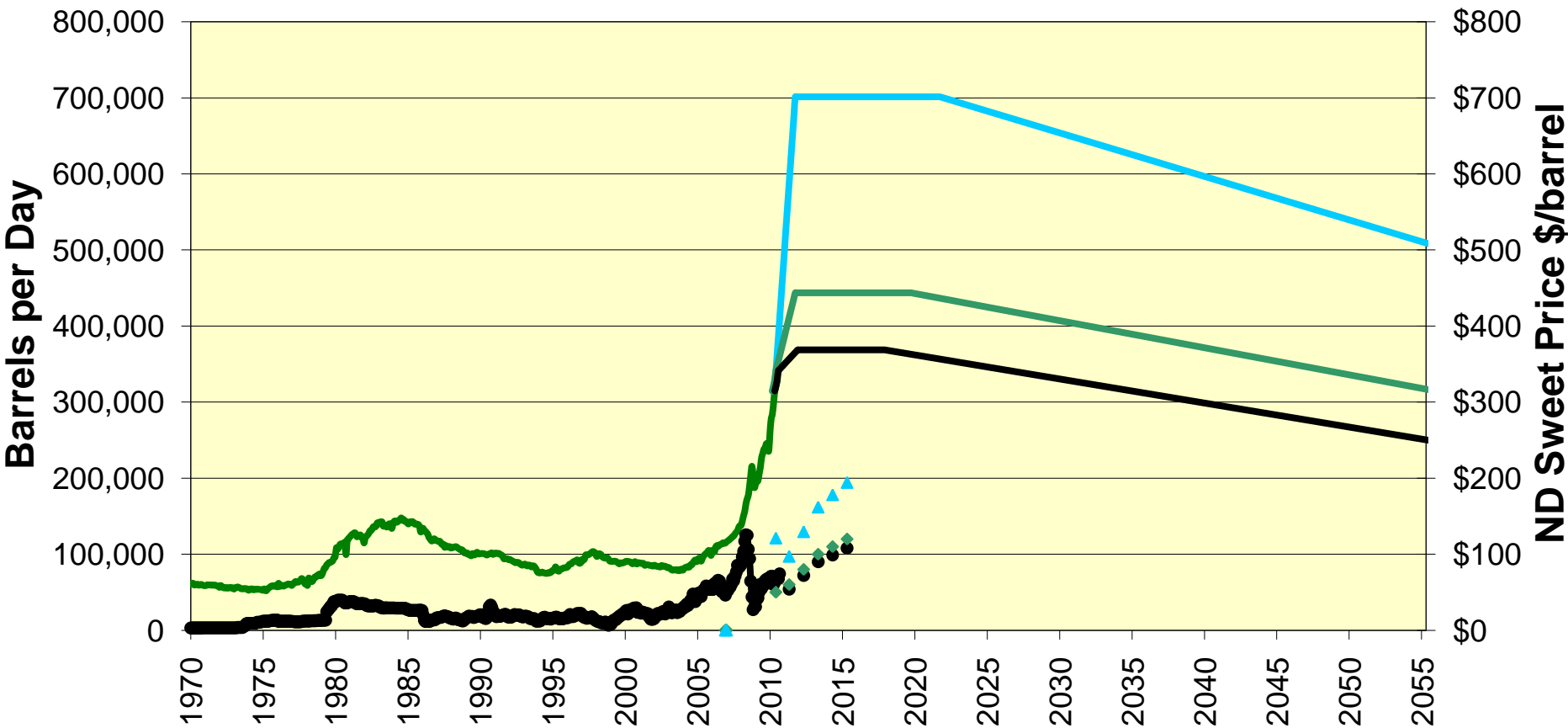
*Prediction is very difficult,  
especially if it's about the future.*

-Niels Bohr

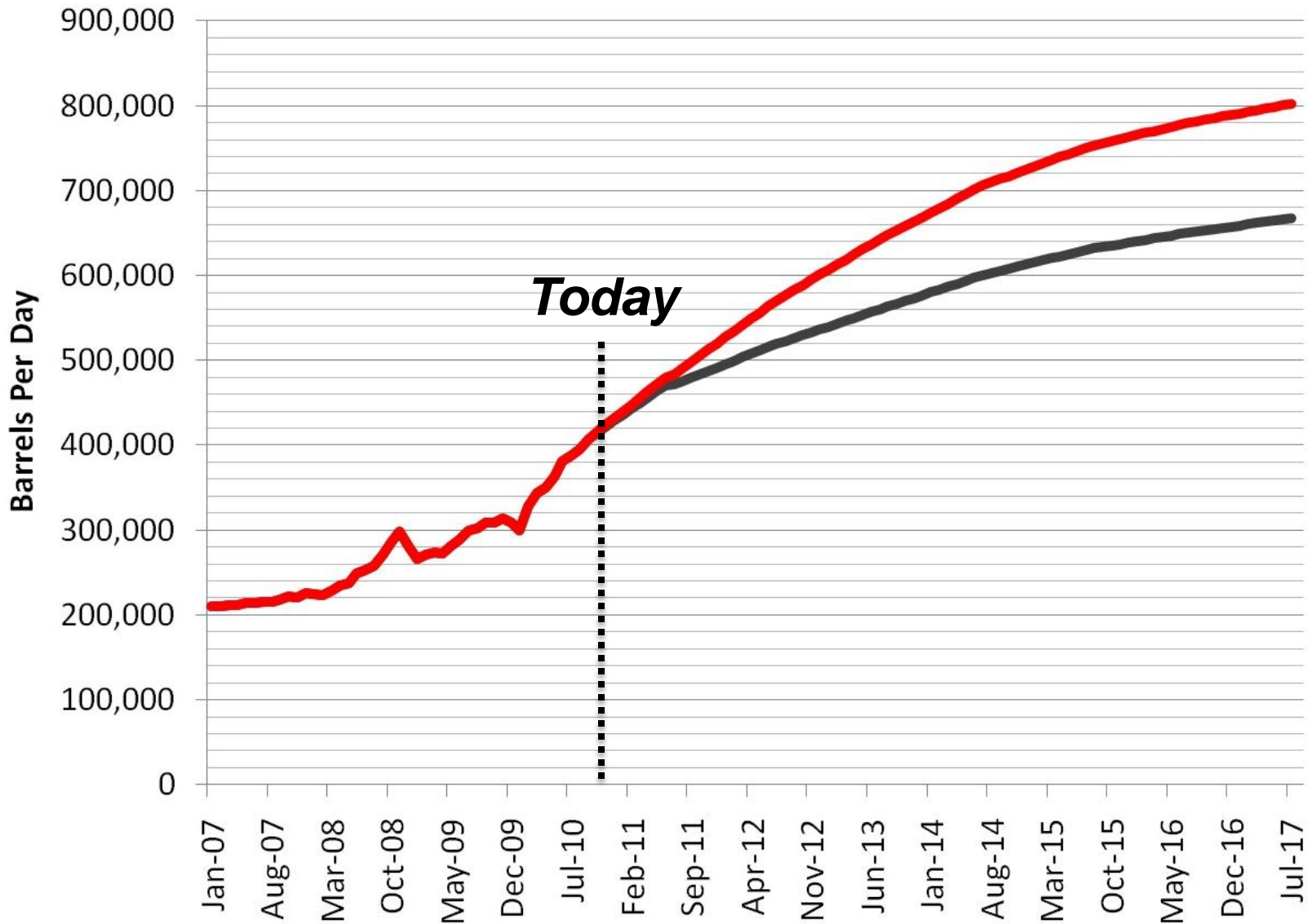




# North Dakota Oil Production and Price



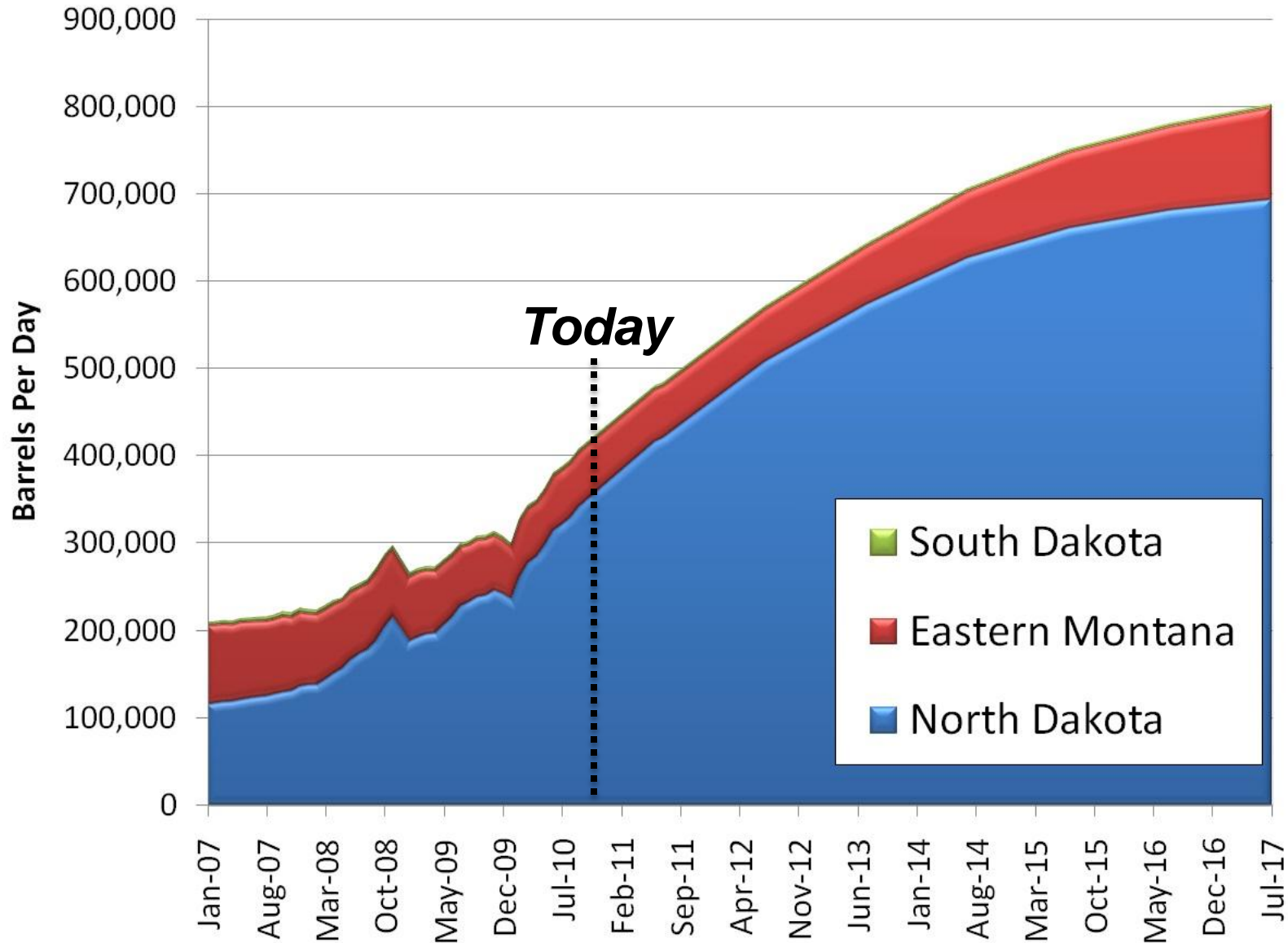
# Forecasting Williston Basin Oil Production, BOPD



Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.



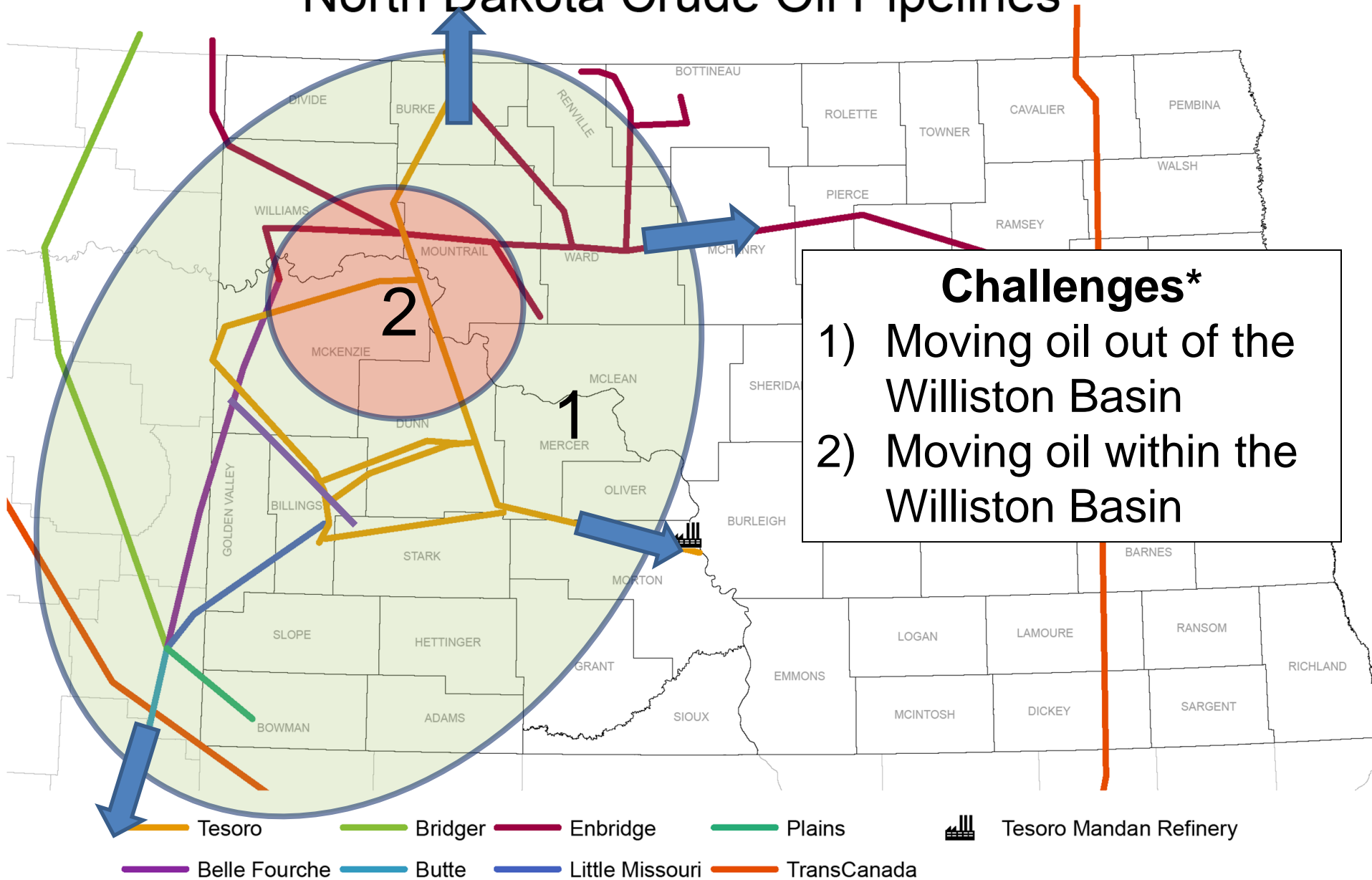
# Forecasting Williston Basin Oil Production, BOPD



Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

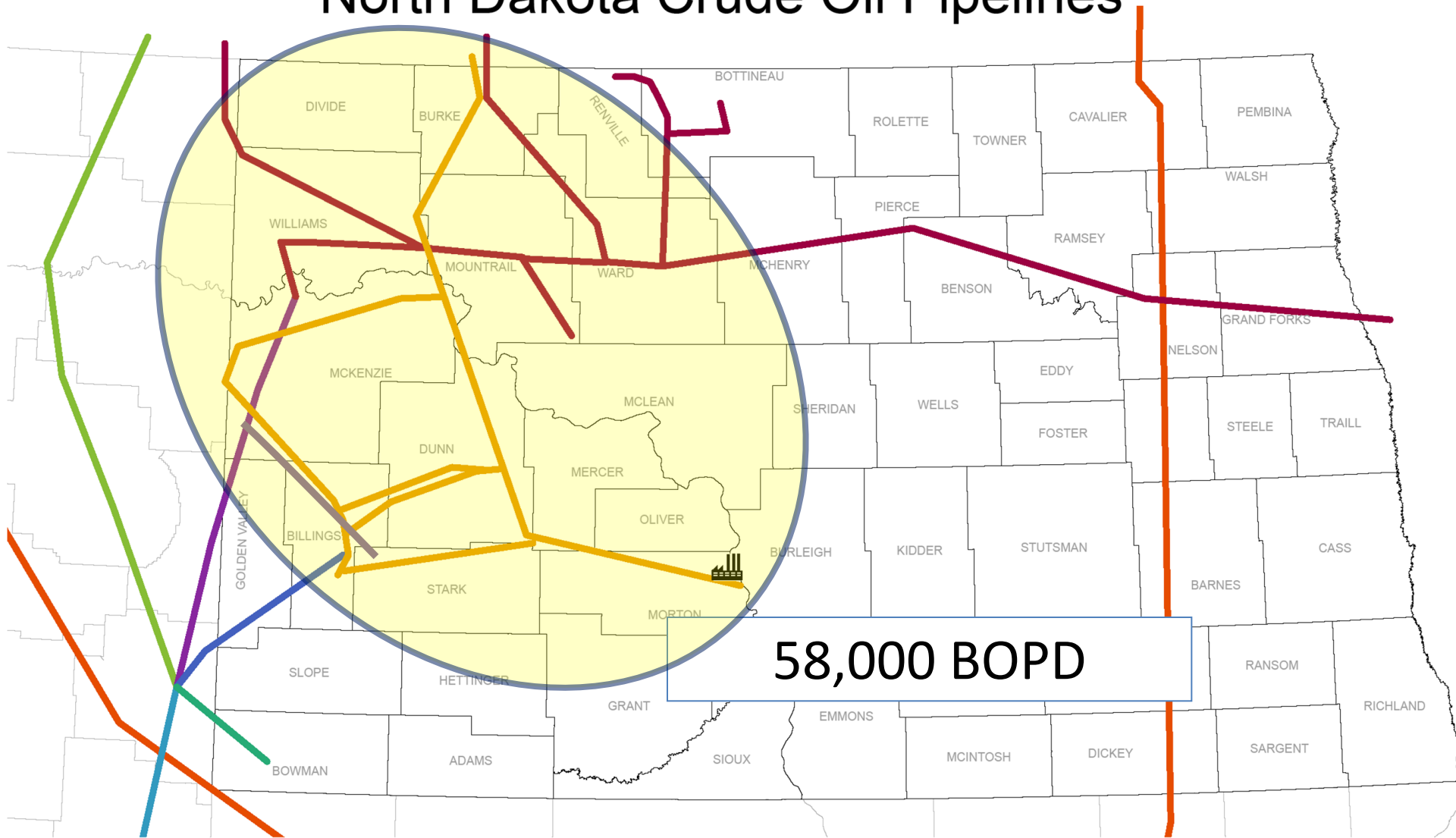


# North Dakota Crude Oil Pipelines



\*Modified from Bridger and Belle Fourche Pipelines

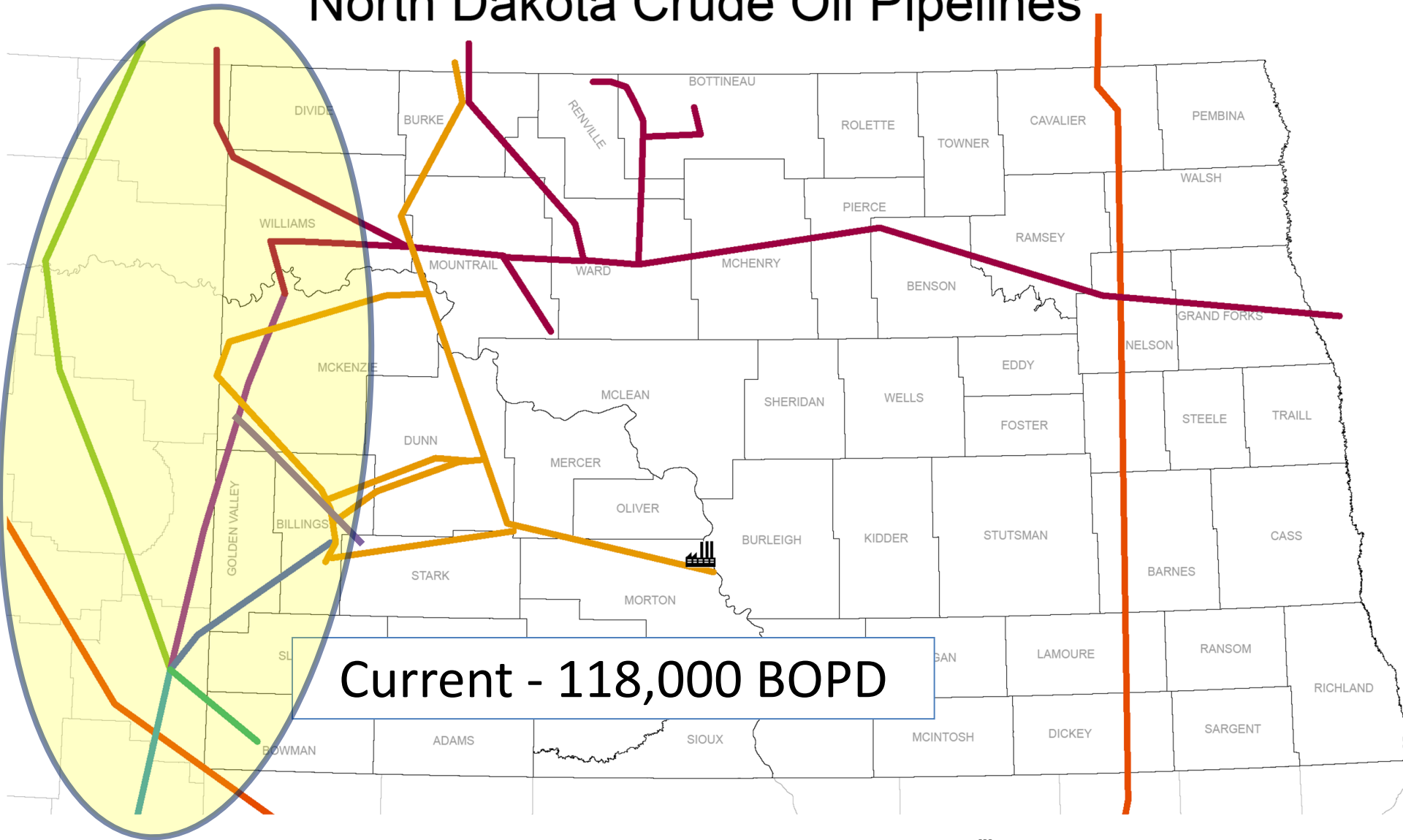
# North Dakota Crude Oil Pipelines



— Tesoro — Bridger — Enbridge — Plains —  Tesoro Mandan Refinery  
— Belle Fourche — Butte — Little Missouri — TransCanada

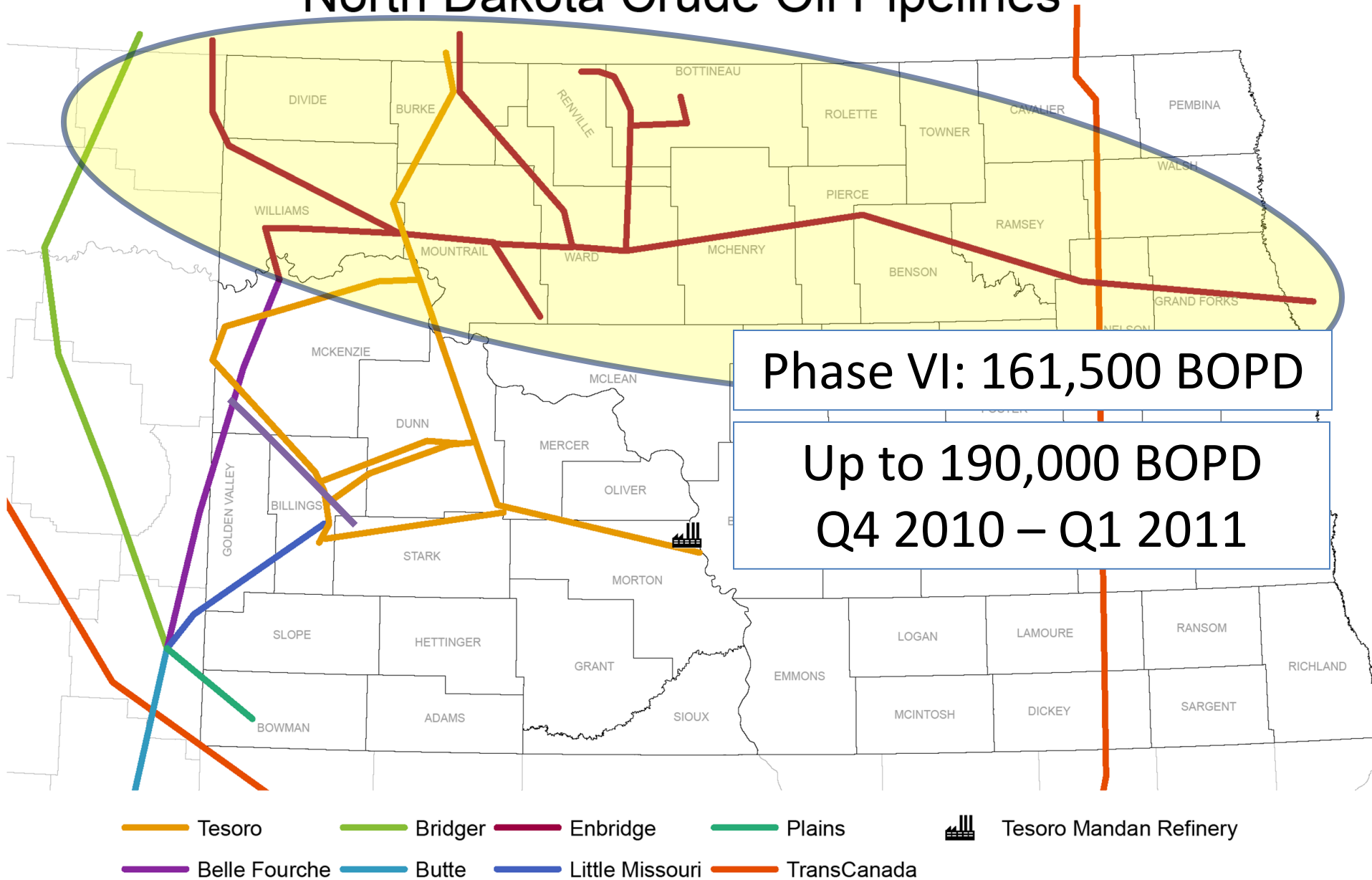


# North Dakota Crude Oil Pipelines



- Tesoro
- Bridger
- Enbridge
- Plains
- Tesoro Mandan Refinery
- Belle Fourche
- Butte
- Little Missouri
- TransCanada

# North Dakota Crude Oil Pipelines



# Rail Transportation

**EOG – Stanley, ND**



**Others Include:**

Minot

Dore

Stampede

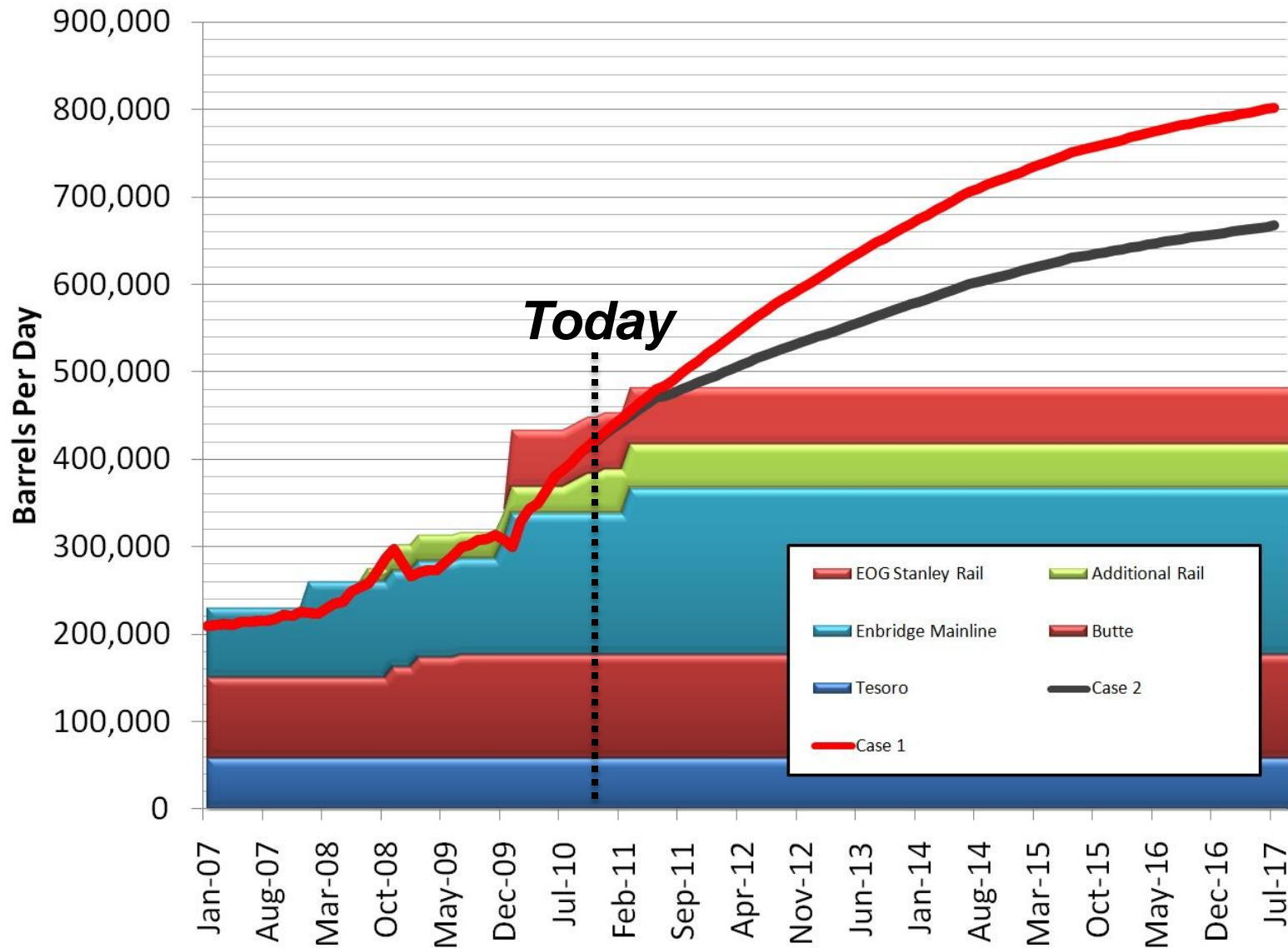
Donnybrook



**Dakota Transport Solutions – New Town, ND**

**Images Provided By:  
Loren Kopseng**

# Williston Basin Oil Production & Export Capacity, BOPD



Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.



*The future starts today,  
not tomorrow.*

-Pope John Paul II



# Several Exciting Developments For Post 2010 Crude Oil Transport

Enbridge Bakken Expansion Program

Keystone XL Marketlink

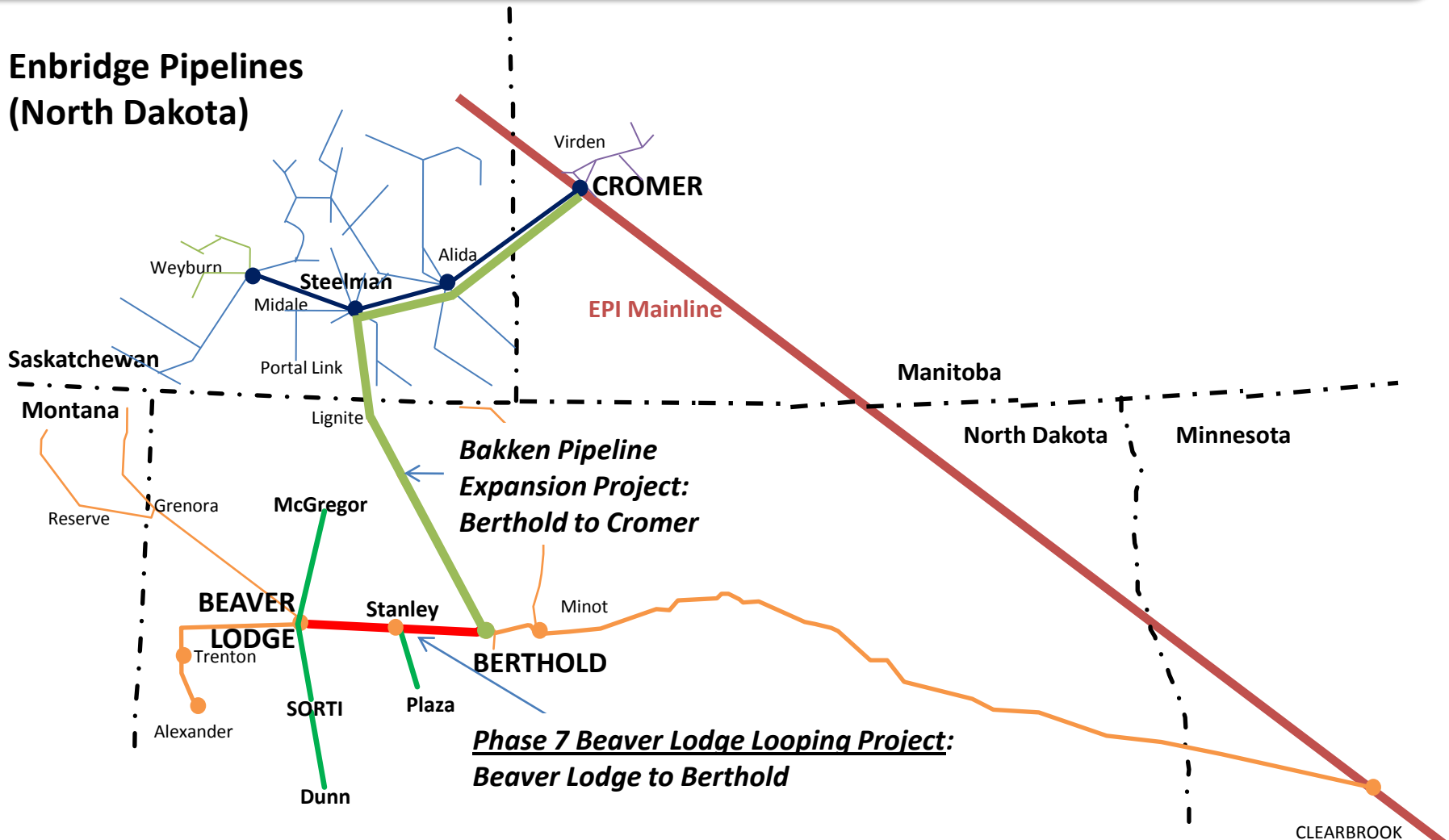
True Co.'s Baker 300

Plains Bakken North

Unit Train Development

# Bakken Pipeline Expansion

## Enbridge Pipelines (North Dakota)



**EPND Phase 7 Gathering Projects: SORTI, Dunn, Plaza and McGregor**



# Proposed TransCanada Marketlink

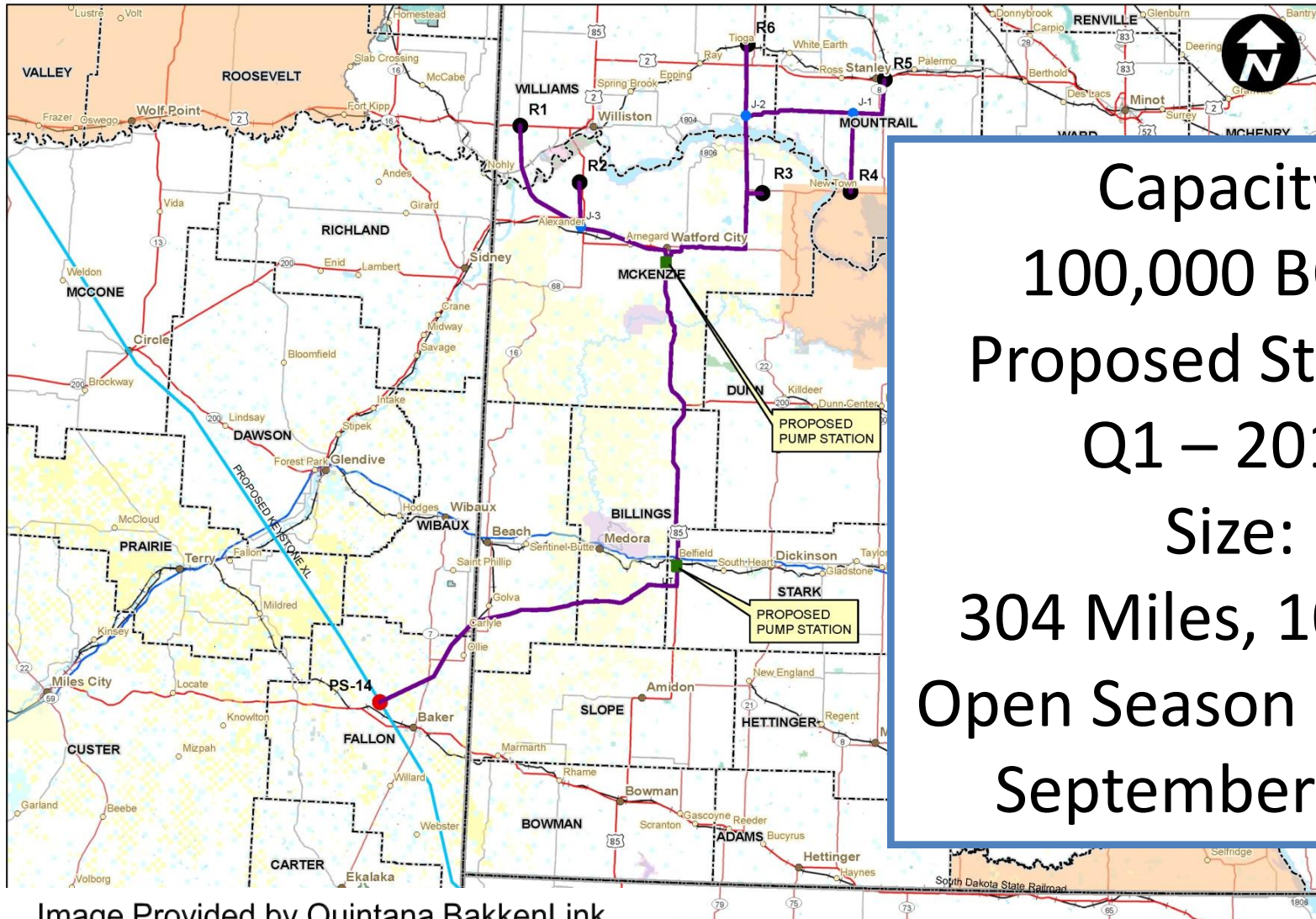
- Binding Open Season Complete
- Q1 2013 Proposed Startup

Image: TransCanada Notice of Open Season



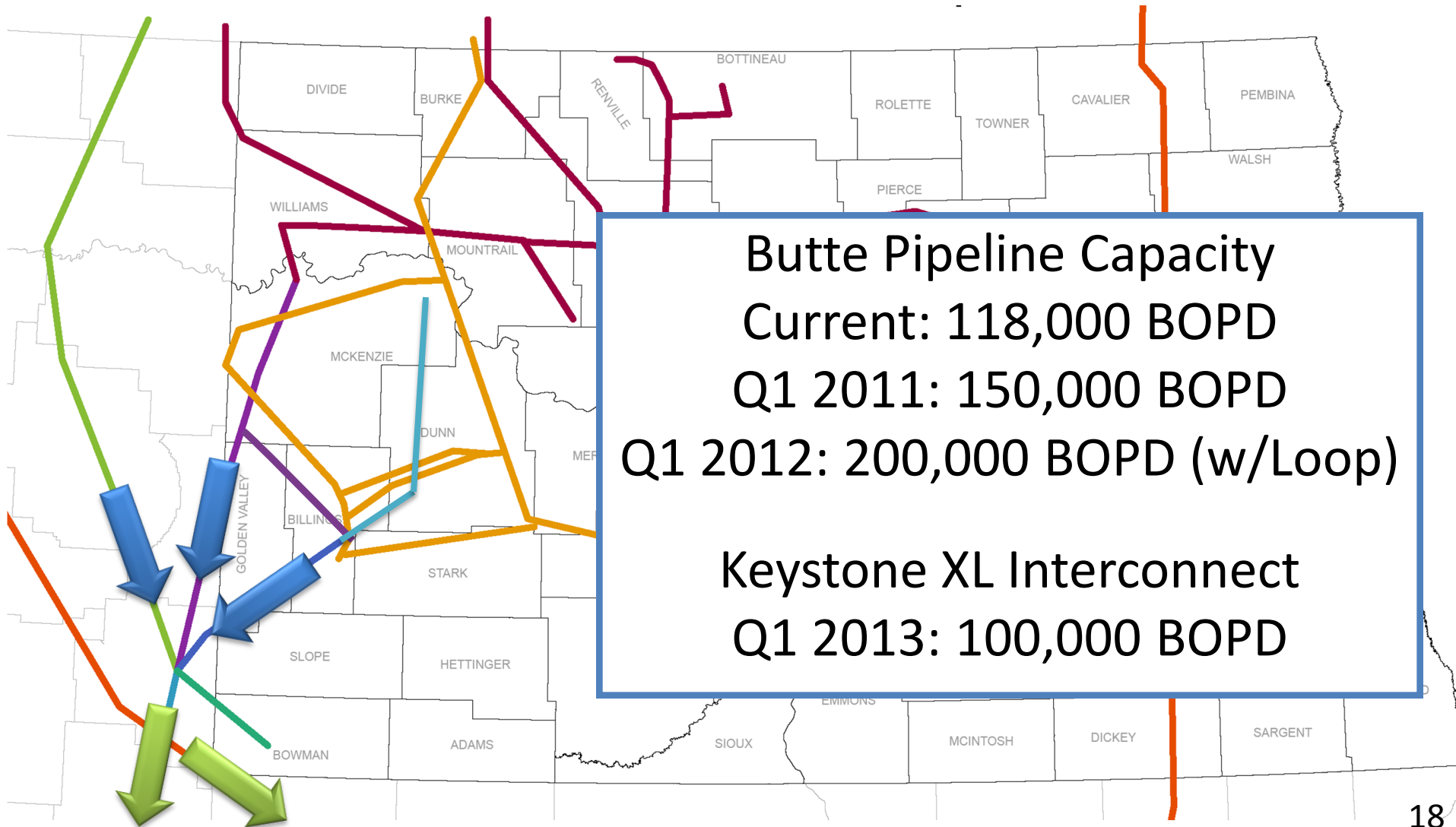


# Proposed Quintana BakkenLink

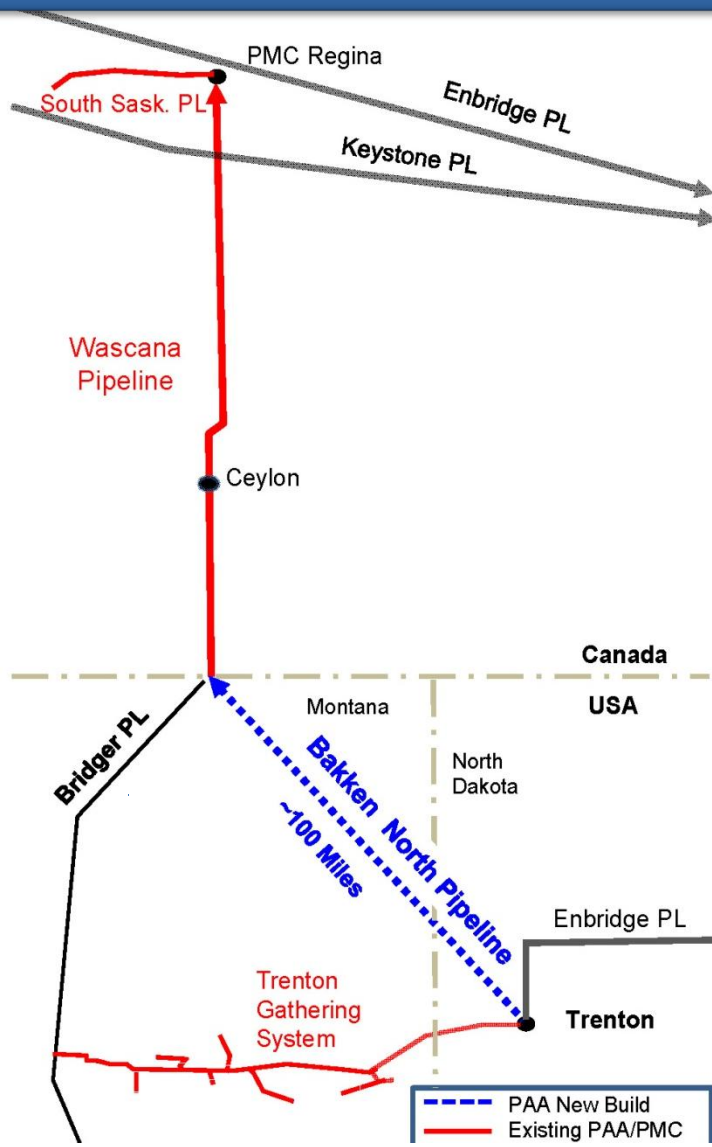


Capacity:  
100,000 BOPD  
Proposed Startup:  
Q1 – 2013  
Size:  
304 Miles, 10"-16"  
Open Season Started:  
September 27th

# True Co.'s Proposed "Baker 300"



# Plains Bakken North Pipeline

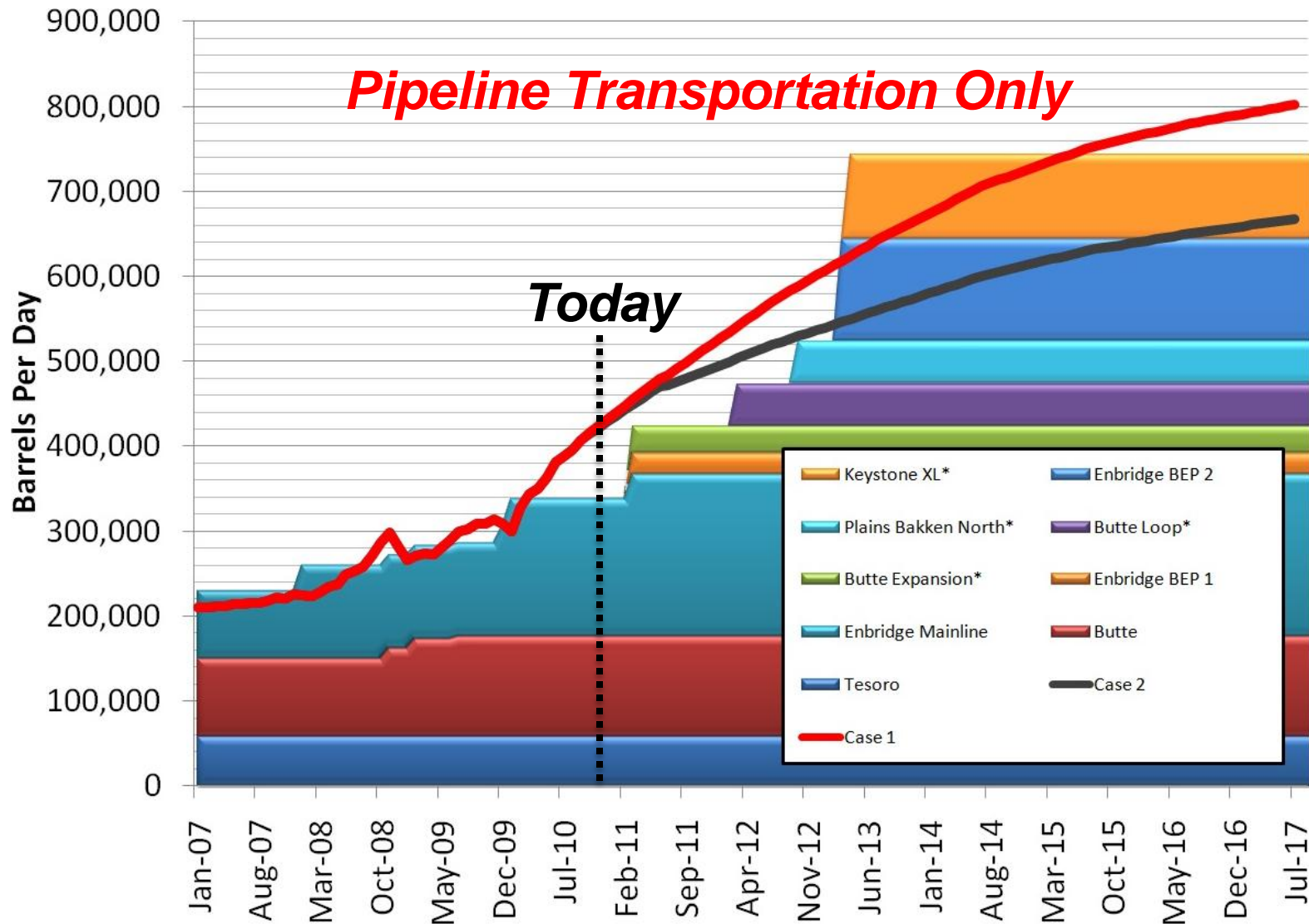


Proposed Capacity  
50,000-75,000 BOPD  
Q4 2012

New 103 Miles, 12" Pipeline  
Reverse Wascana Pipeline

\$160-\$200 Million

# Williston Basin Oil Production & Export Capacity, BOPD



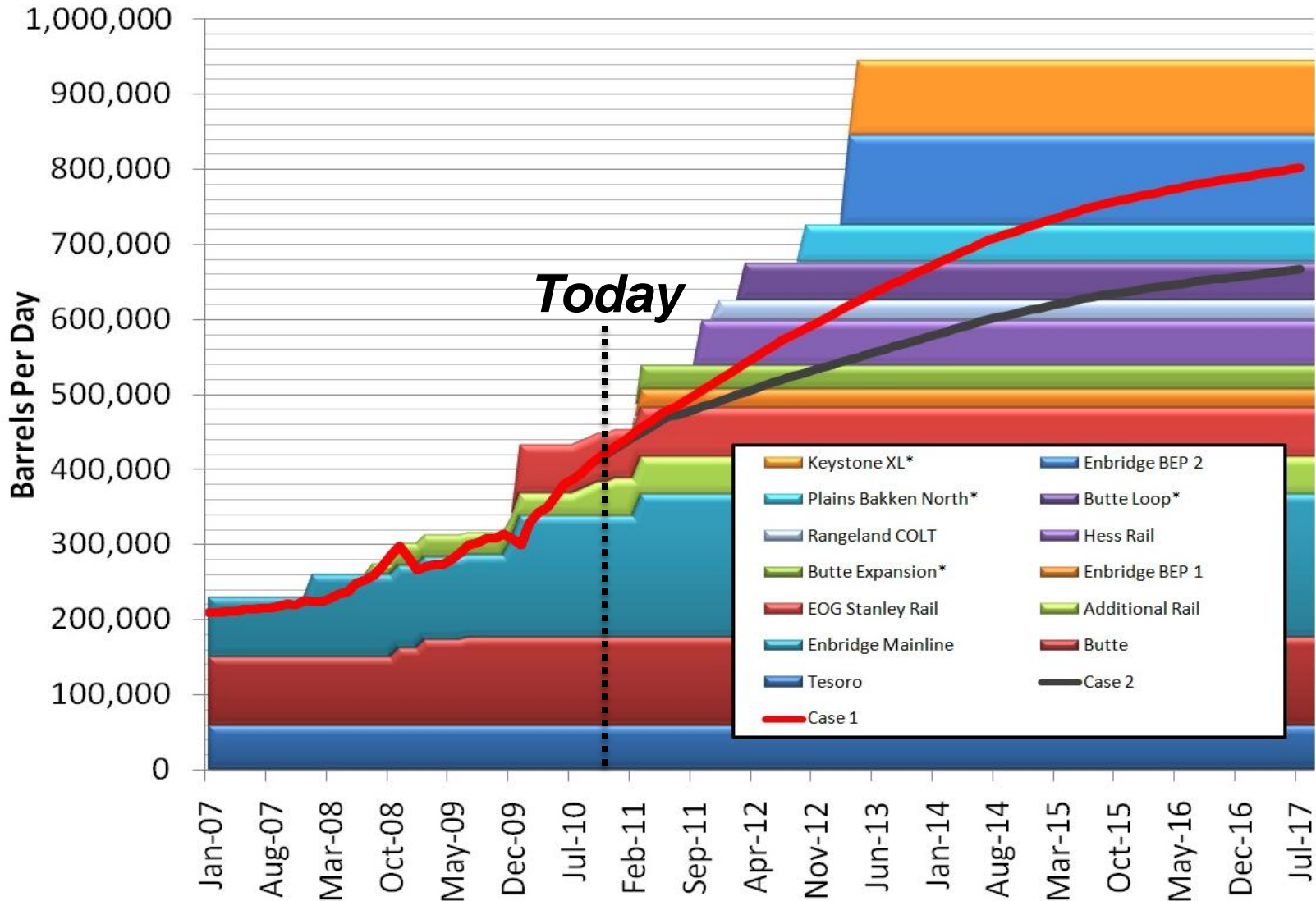
Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

\*Projects still in the proposed or internal review process





# Williston Basin Oil Production & Export Capacity, BOPD

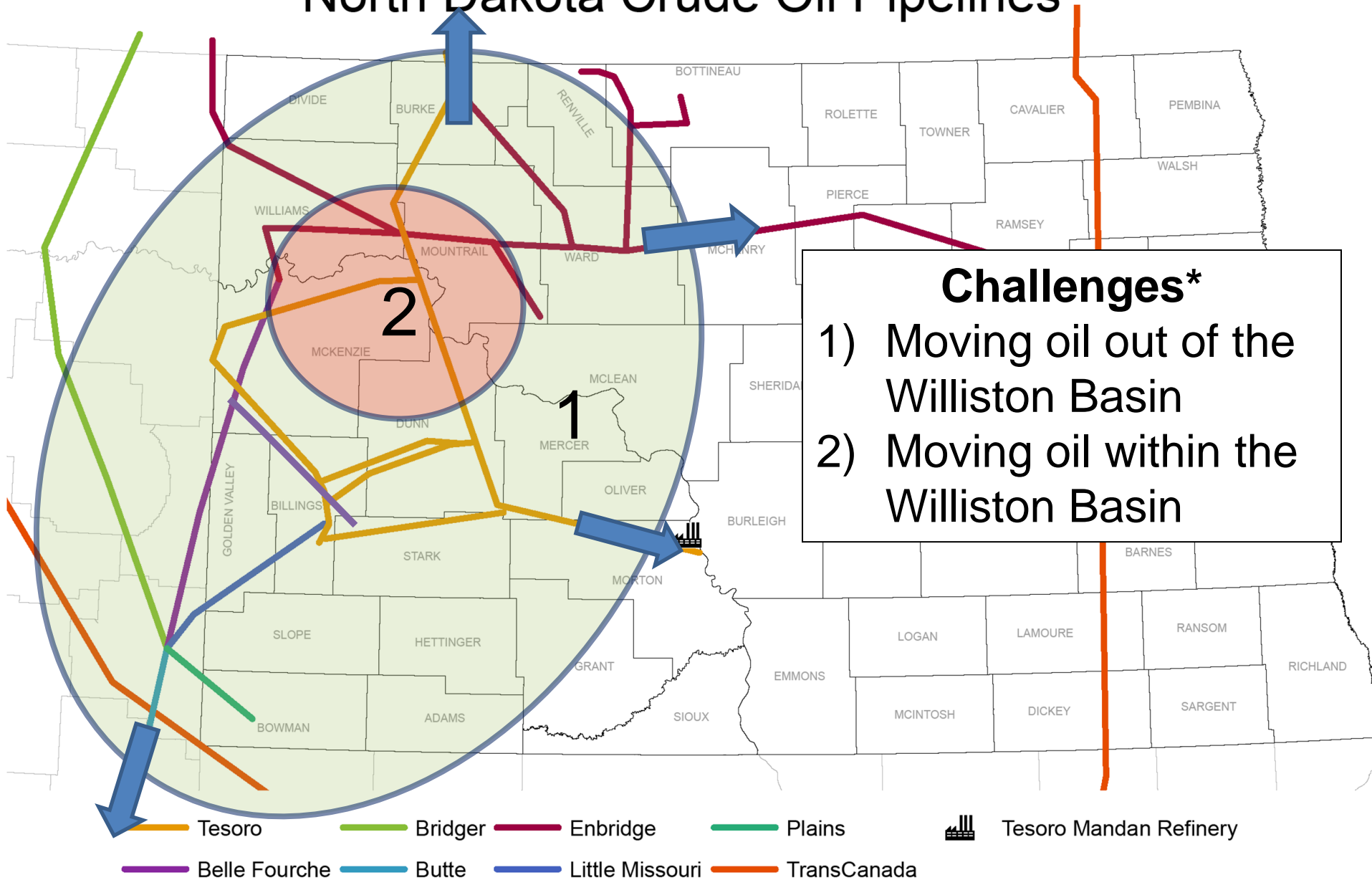


Production forecast is for visual demonstration purposes only and should not be considered accurate for any near or long term planning.

\*Projects still in the proposed or internal review process

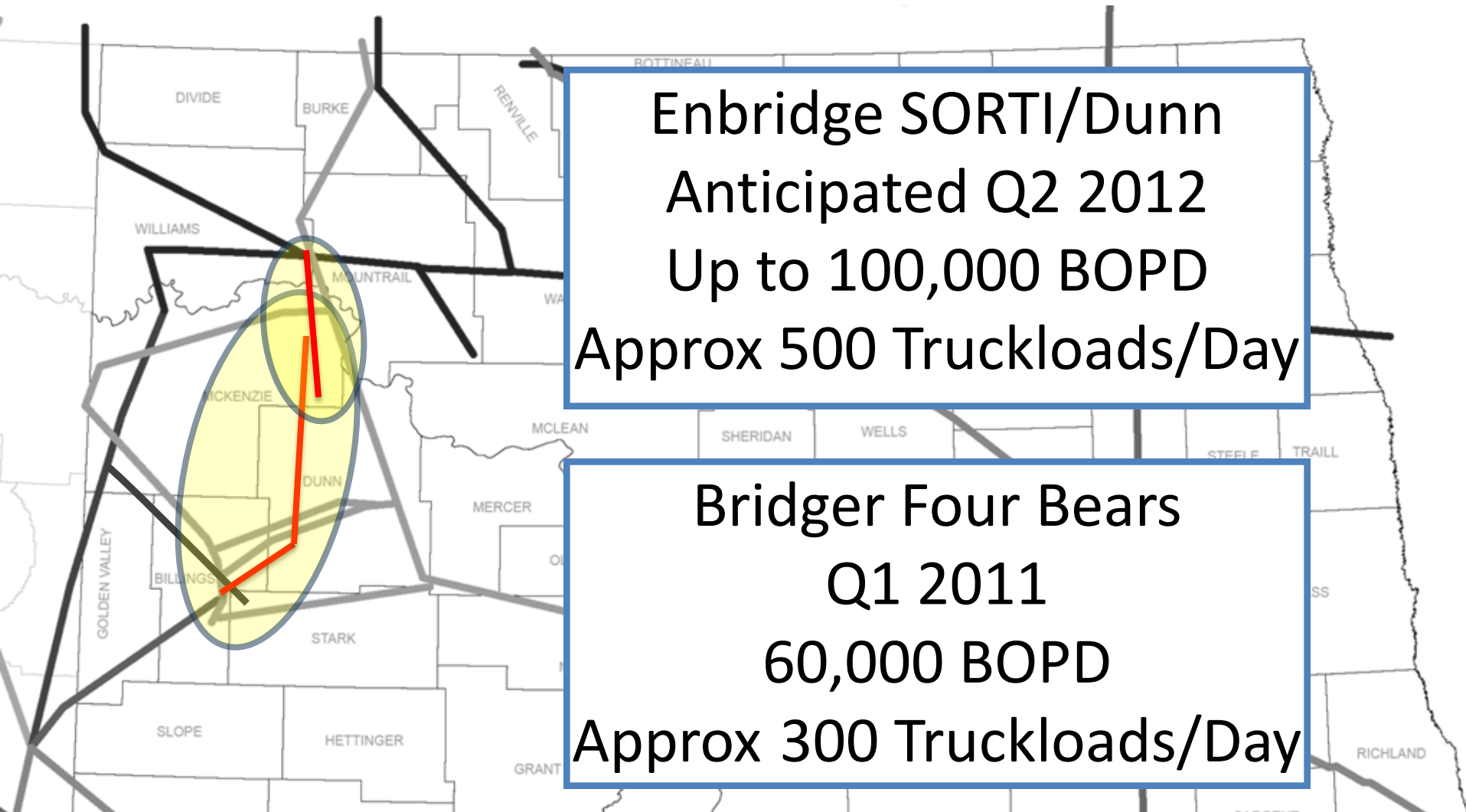


# North Dakota Crude Oil Pipelines

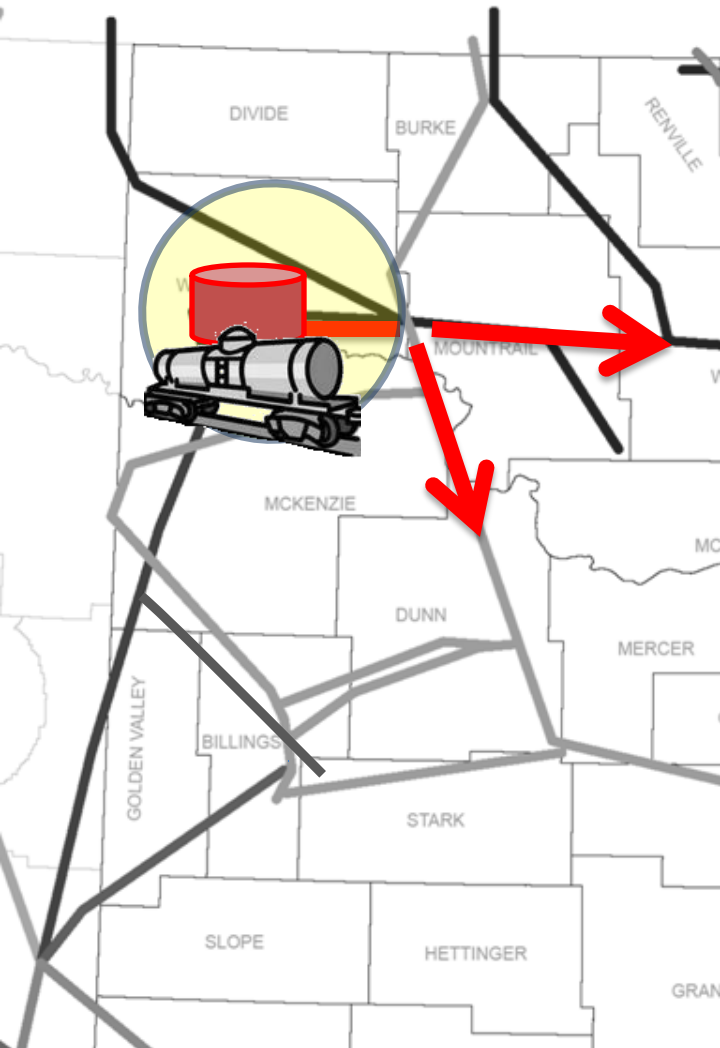


\*Modified from Bridger and Belle Fourche Pipelines

# Reducing Truck Traffic



# Rangeland COLT Hub and Pipeline



Gathering, Storage, &  
Transportation

Tie into Enbridge & Tesoro  
(20 Mile - 8" - 40,000 BOPD)

Anticipated Dec 2011

210,000 Barrels of Tankage

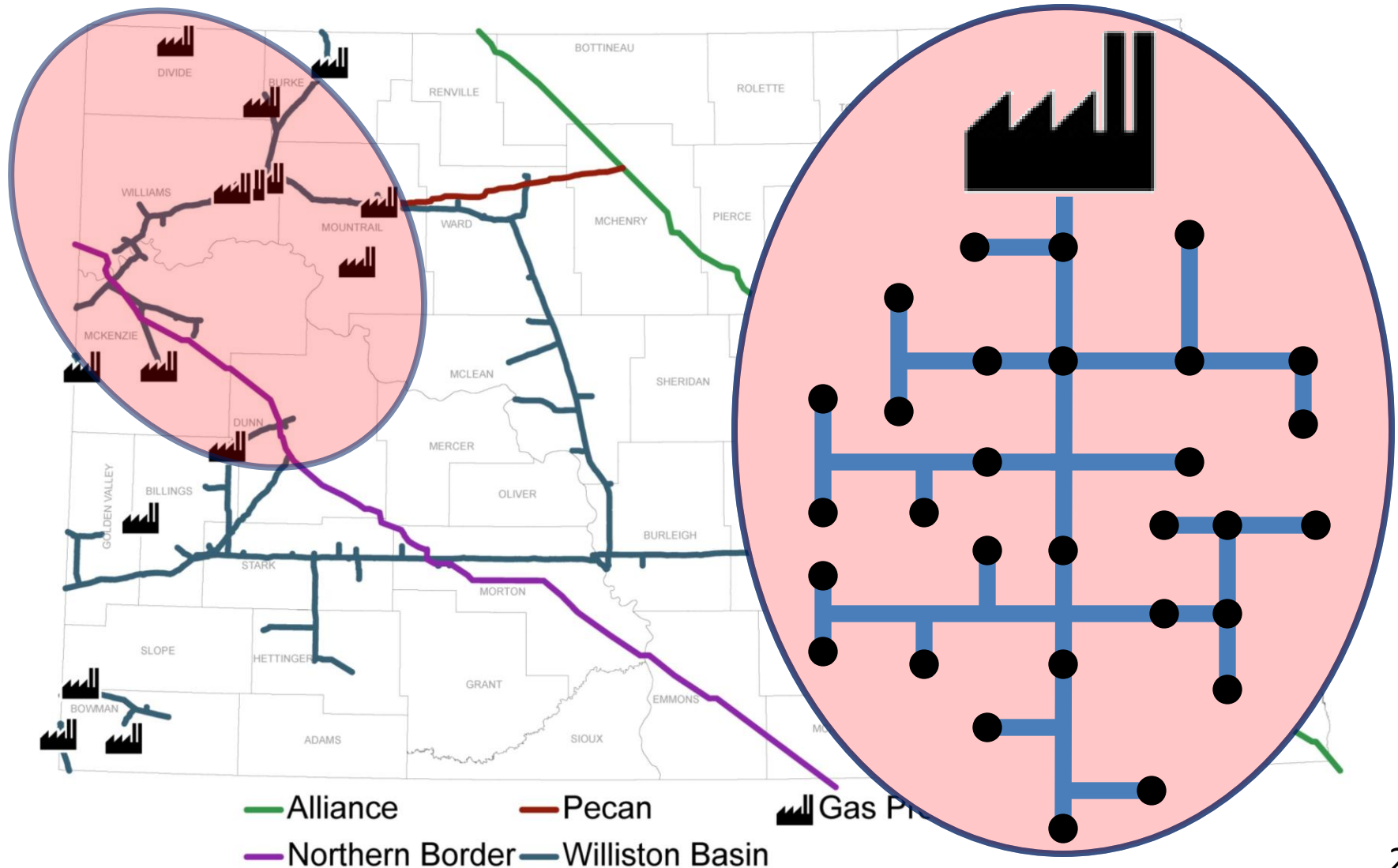
Rail up to 27,000 BOPD initially  
(Expandable up to 60,000)



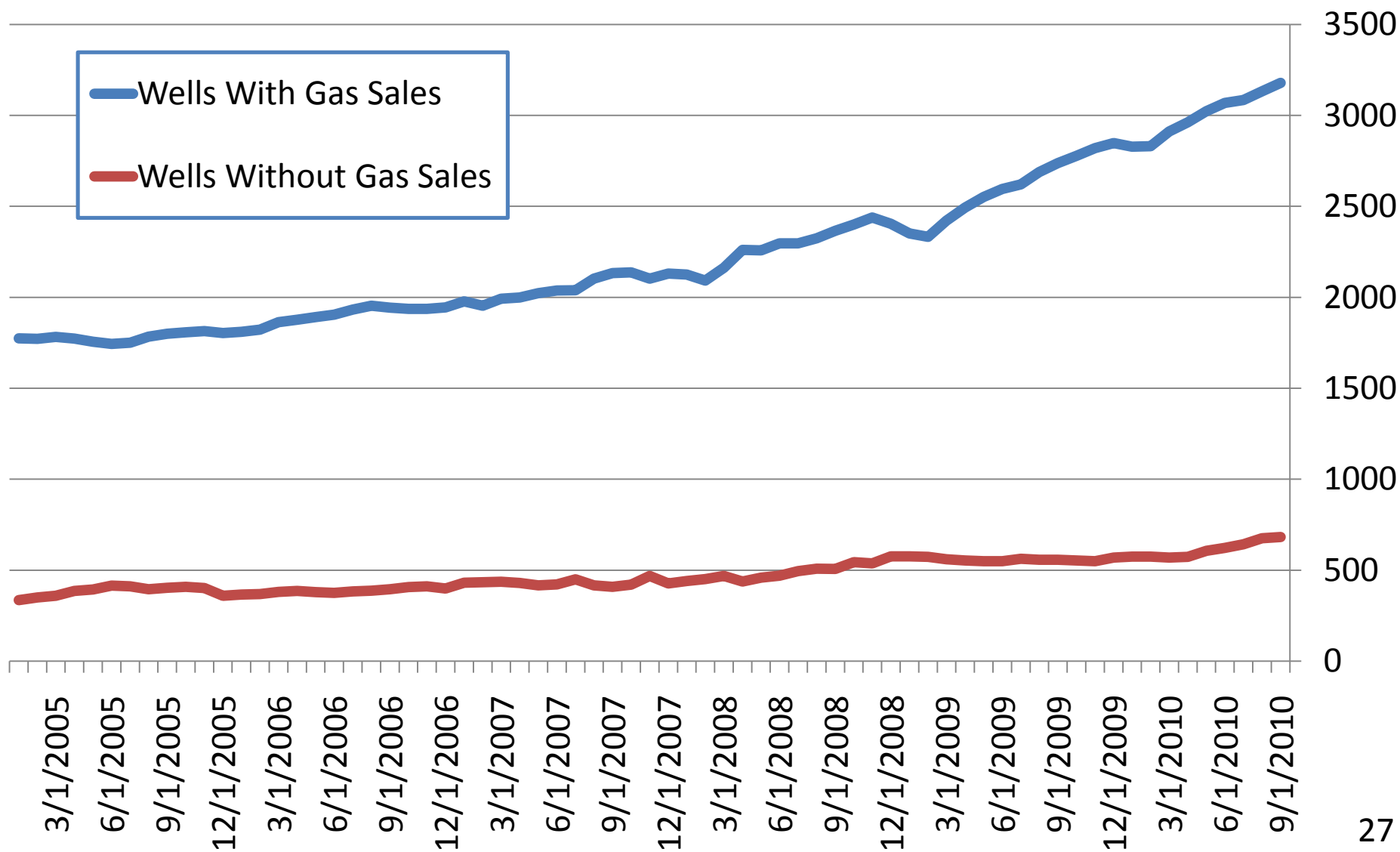
# Natural Gas Projects



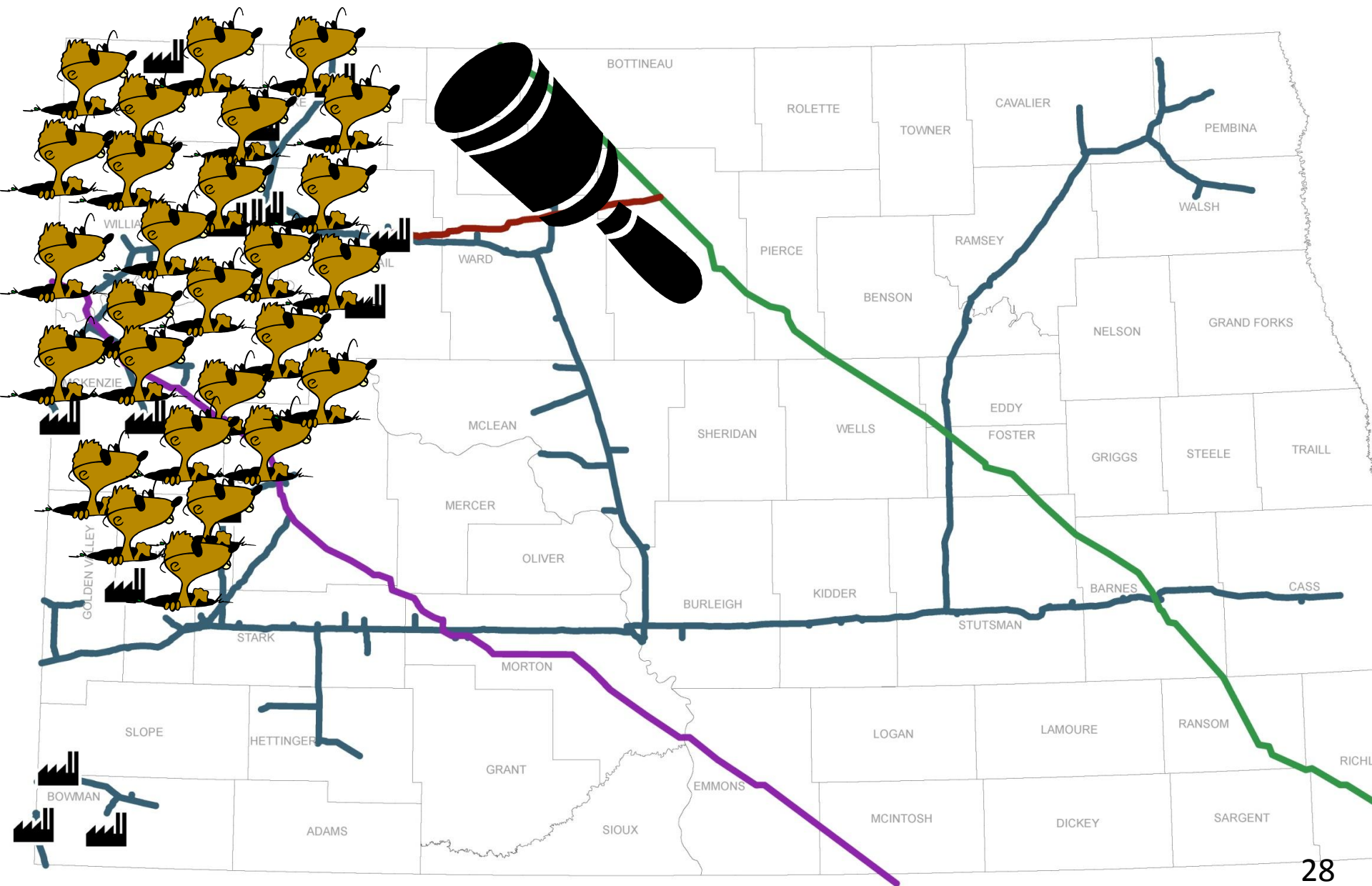
# Natural Gas Challenges

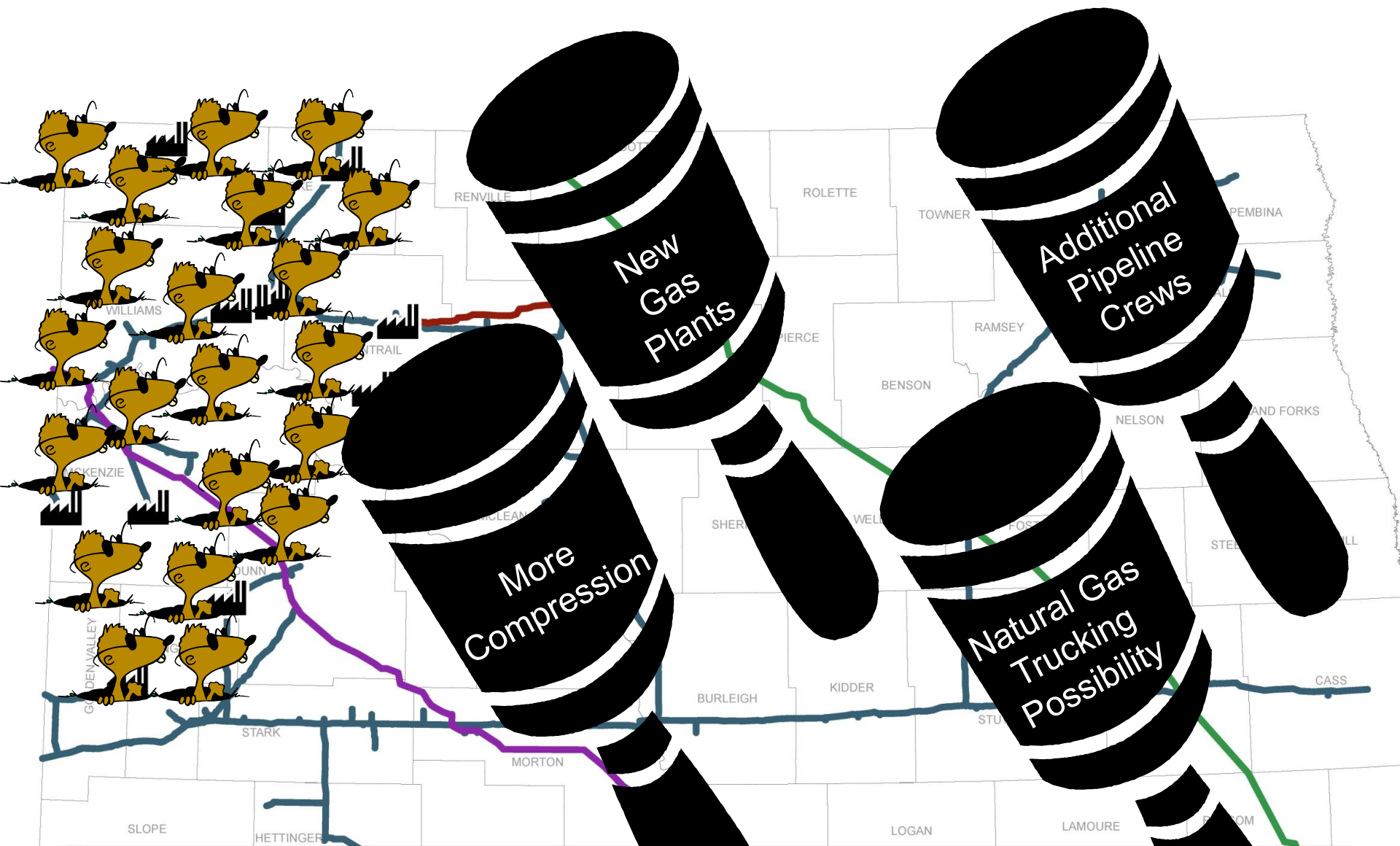


# ND Gas Gathering Statistics



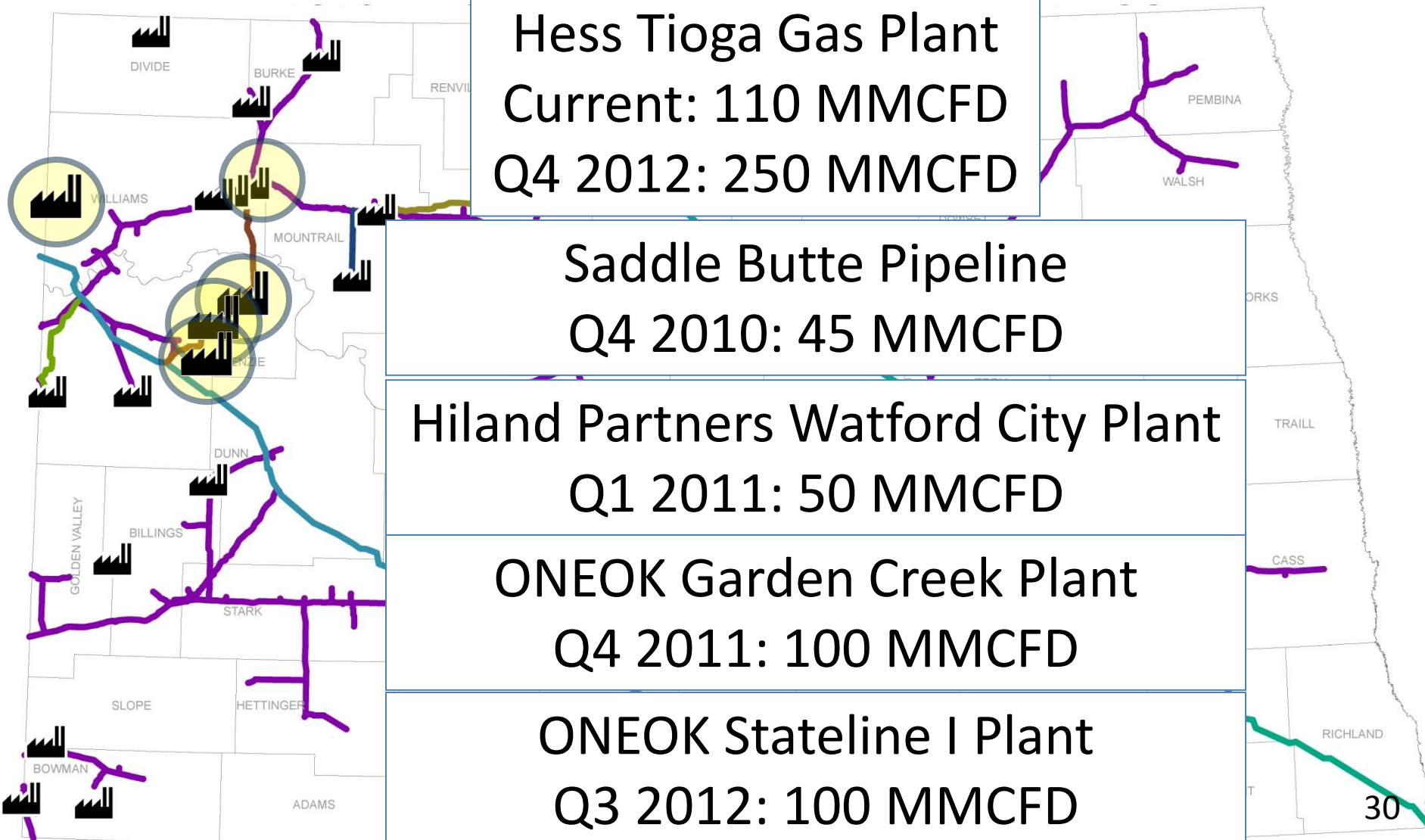






**\$2.2 - \$2.5 BILLION In the Next 1-3 Yrs**

# New or Expanding Gas Plants



Hess Tioga Gas Plant  
Current: 110 MMCFD  
Q4 2012: 250 MMCFD

Saddle Butte Pipeline  
Q4 2010: 45 MMCFD

Hiland Partners Watford City Plant  
Q1 2011: 50 MMCFD

ONEOK Garden Creek Plant  
Q4 2011: 100 MMCFD

ONEOK Stateline I Plant  
Q3 2012: 100 MMCFD

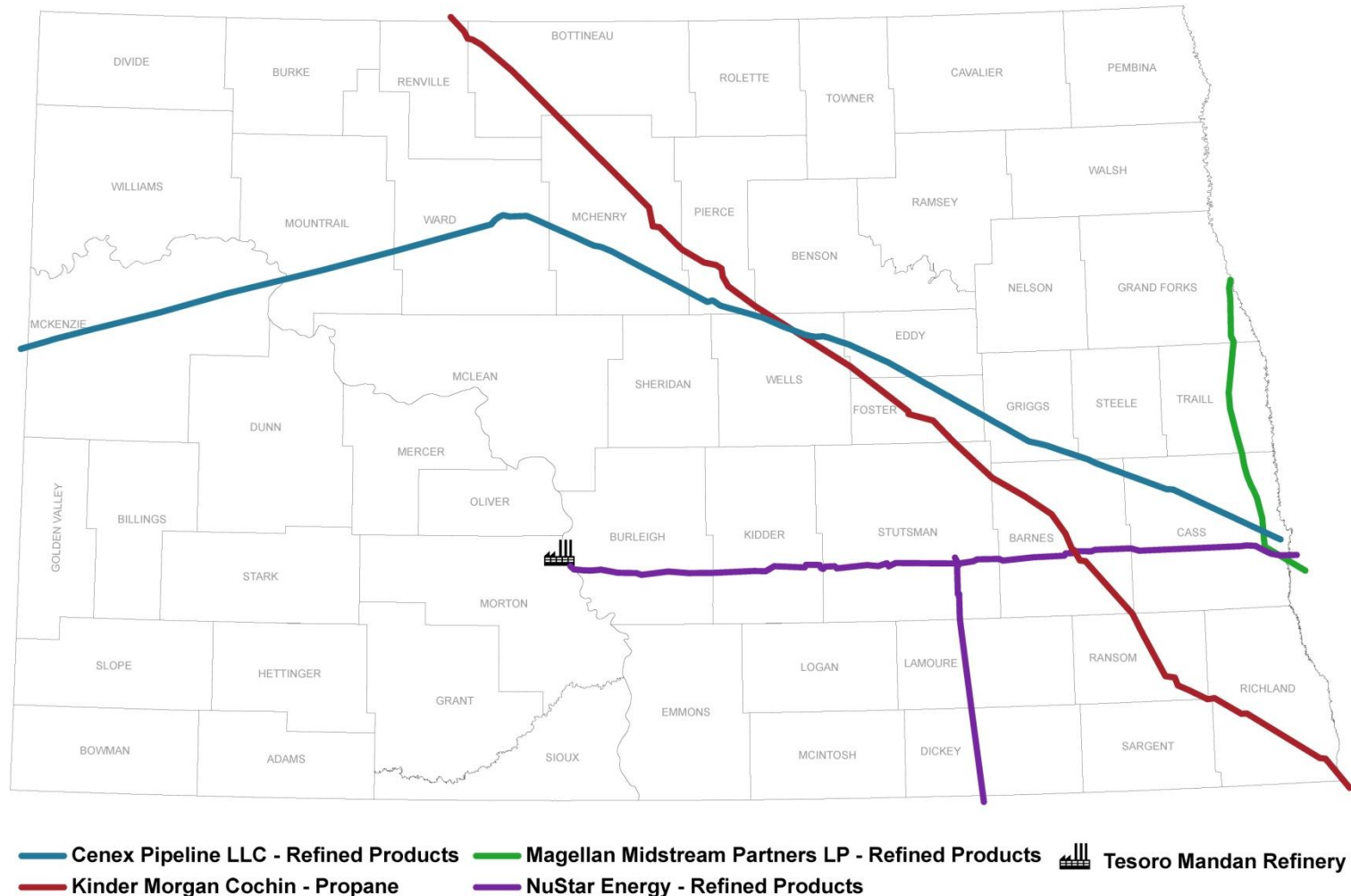


# Refining Study



# Refining Study

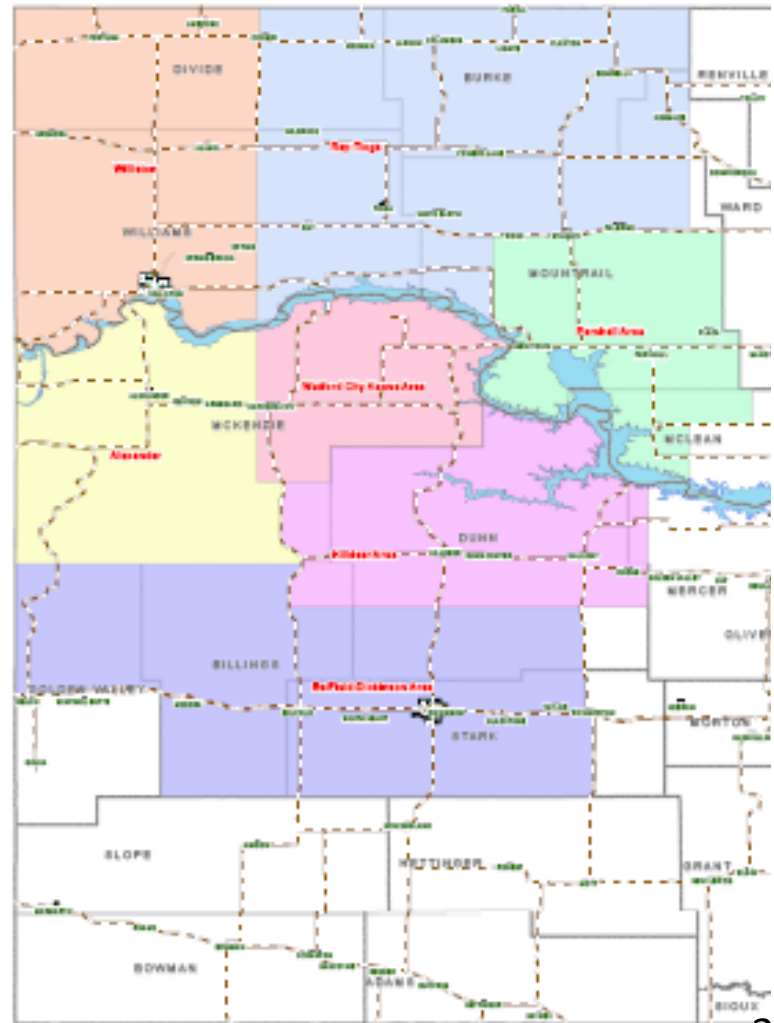
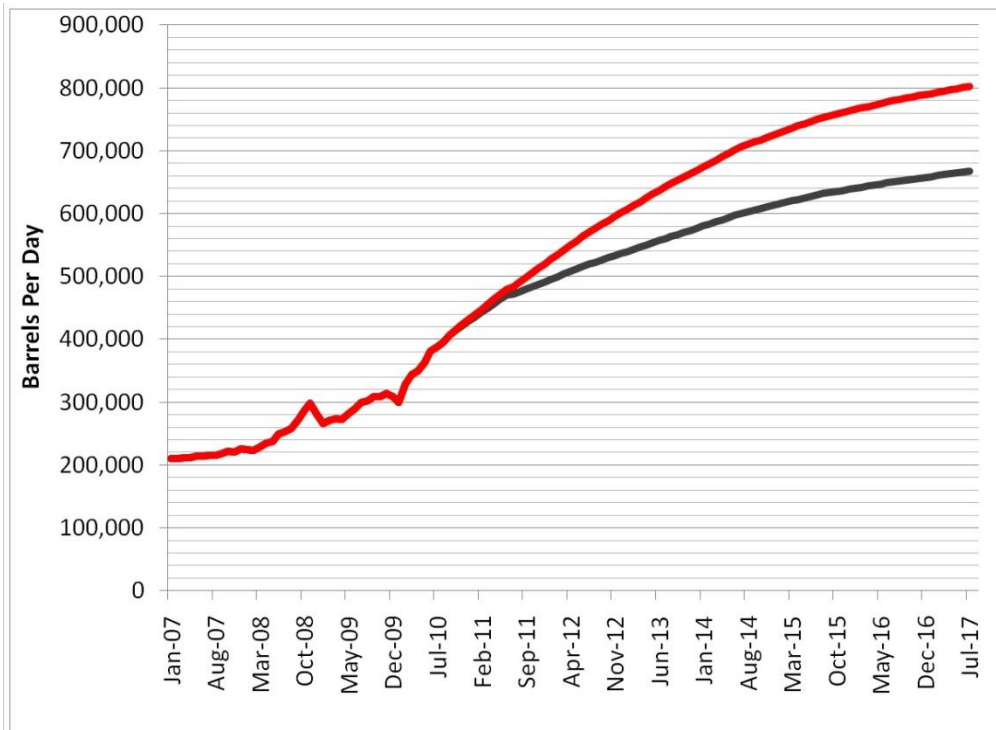
## North Dakota Products Pipelines





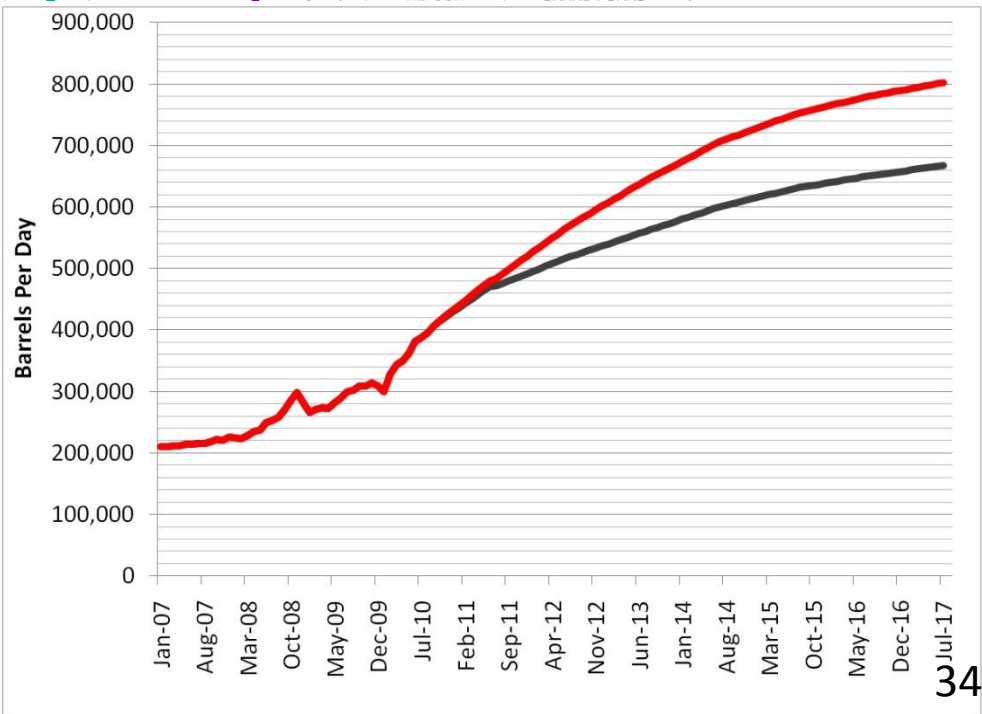
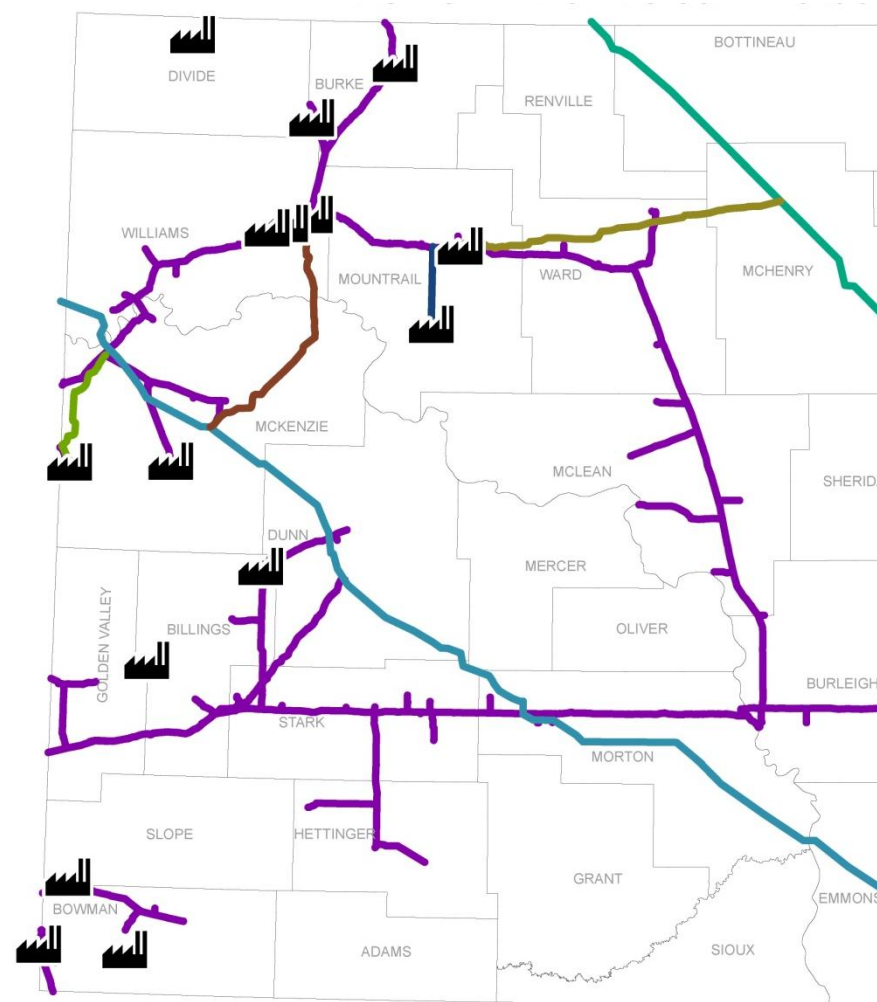
# What's Next for the NDPA...

## Enhanced Regional Forecasting



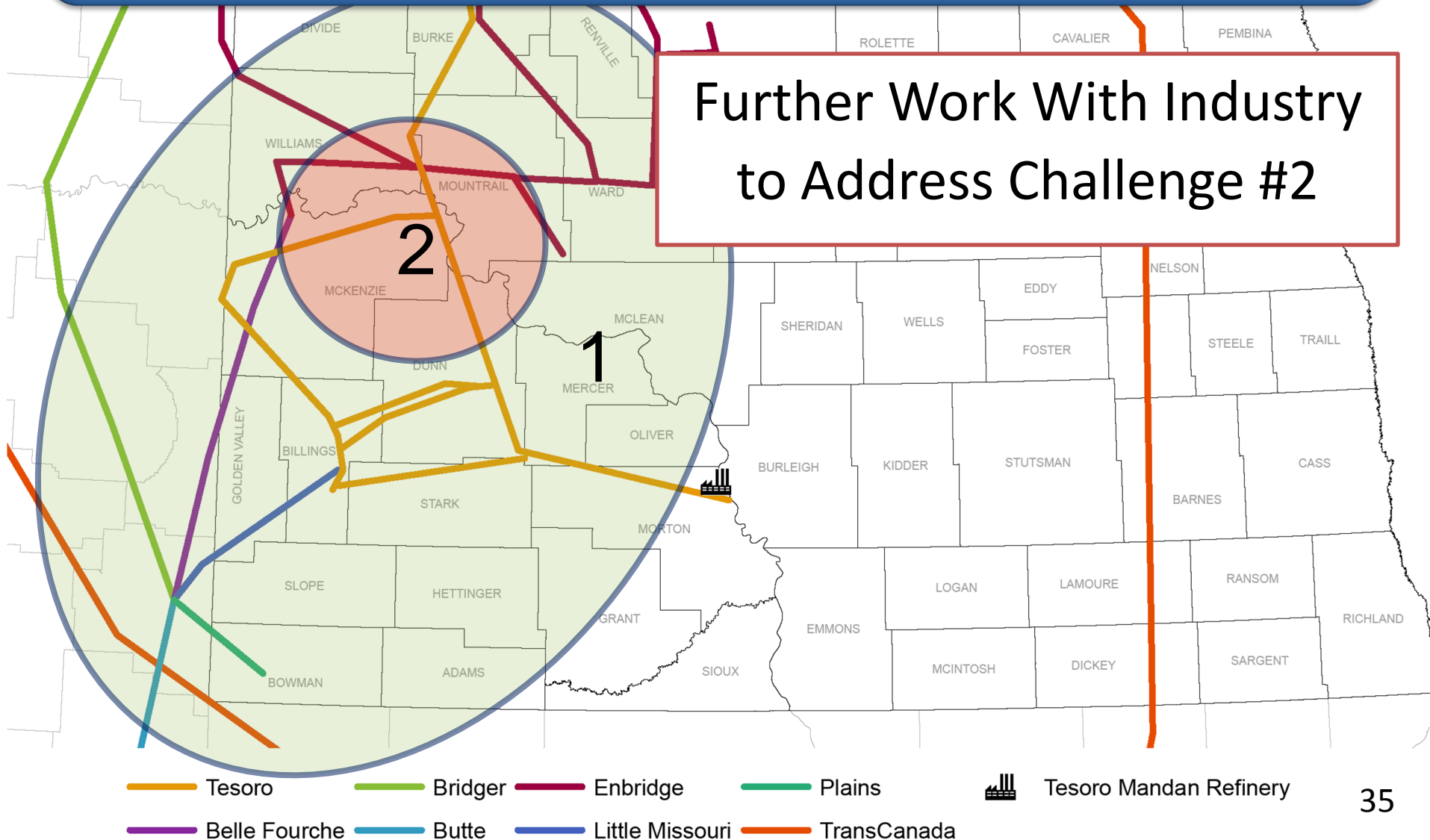
# What's Next for the NDPA...

## Reassess Natural Gas Transmission Infrastructure

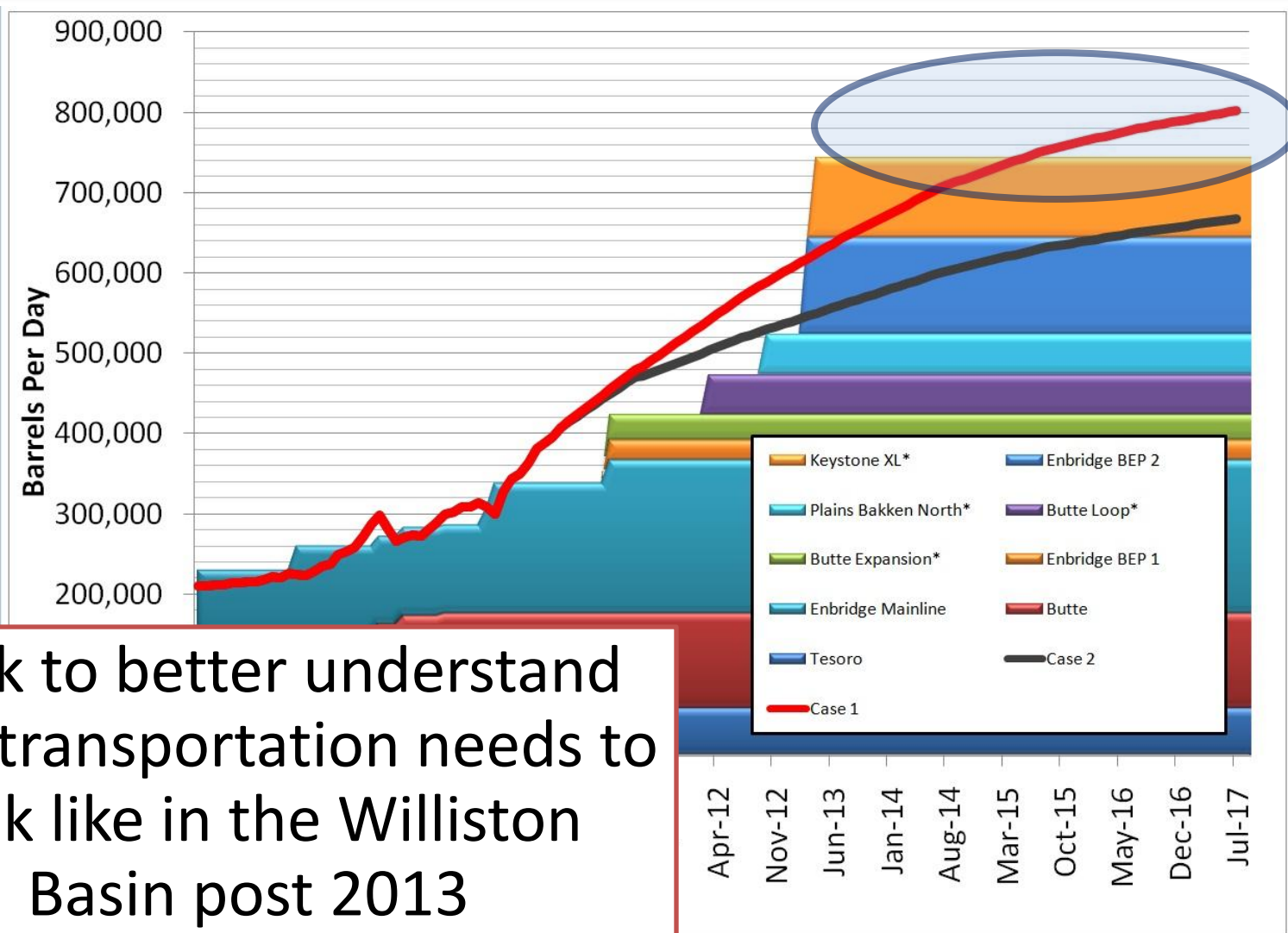


# What's Next for the NDPA...

Further Work With Industry  
to Address Challenge #2



# What's Next for the NDPA...



Work to better understand what transportation needs to look like in the Williston Basin post 2013

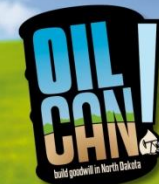


# Public Presence



2<sup>nd</sup> Annual Bakken Rocks

## COOKFEST

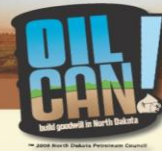


**JULY 27** Tioga, ND  
5:00 - 8:00 p.m. CDT City Park

**JULY 29** New Town, ND  
5:00 - 8:00 p.m. CDT 4 Bears Casino  
Little Shell Amphitheater

Bakken Basics Education Sessions will be held at both locations at [WWW.NDOIL.ORG](http://WWW.NDOIL.ORG).

rikara Banquet Rooms  
RSVP by visiting  
[WWW.NDOIL.ORG](http://WWW.NDOIL.ORG)



## BAKKEN BASICS TOWN HALL MEETINGS

Learn about the oil and gas production activities taking place in your area from industry professionals.

*\*Light food and beverages provided\**

Vicky Steiner, ND Association of Oil & Gas Producing Counties

Ron Ness, ND Petroleum Council

Kathy Neset, Neset Consulting

Steve Pine, Great Northern Energy

Justin Kringstad, ND Pipeline Authority

Lynn Helms, ND Department of Mineral Resources



### TUESDAY, OCTOBER 5

**Westhope** - High School  
8:00 - 9:45 a.m. CDT

**Bowbells** - City Hall  
12:15 - 2:00 p.m. CDT

**Crosby** - Movie Theater  
5:30 - 7:15 p.m. CDT

### WEDNESDAY, OCTOBER 6

**Williston** - International Inn  
7:30 - 9:15 a.m. CDT

**Watford City** - High School  
11:30 - 1:15 p.m. CDT

**Dickinson** - Grand Dakota Lodge  
3:30 - 5:15 p.m. MDT

VISIT [NDOIL.ORG](http://NDOIL.ORG) FOR MORE INFORMATION

# NDPA Monthly Webinars

- Past Slides and Video Available Online

- Industry Experts



- New Topics Each Month

- Audience Interaction





INDUSTRIAL COMMISSION OF NORTH DAKOTA  
NORTH DAKOTA PIPELINE AUTHORITY  
Governor **John Hoeven**  
Attorney General **Wayne Stenehjem**  
Agriculture Commissioner **Doug Goehring**  
Director **Justin J. Kringstad**

## The Pipeline Publication

Keeping North Dakota Connected

Volume II Issue IV - December 2009

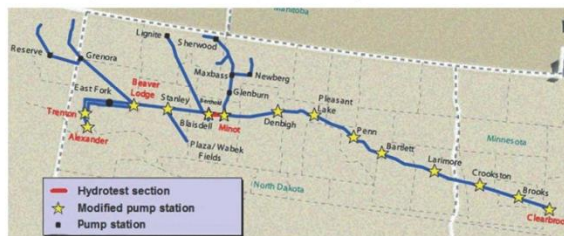
### Greetings

Season's Greetings from the North Dakota Pipeline Authority! While the temperature in North Dakota is dropping fast, the activity in North Dakota's oilfields is heating up. With more rigs moving into the basin, improved well completion techniques, and quicker spud to spud times, North Dakota petroleum production is expected to grow for many years to come. Along with the growing crude oil production, several exciting transportation expansion projects are very near completion, with many more in the works. For additional project information, past newsletters, maps, reports, and more please visit the Pipeline Authority website, [www.pipeline.nd.gov](http://www.pipeline.nd.gov).

### Enbridge Phase VI Expansion Update

The much anticipated Enbridge Phase VI Expansion is nearly complete. Scheduled to be in service on January 1, 2010, the expansion will increase Enbridge's mainline capacity to Clearbrook, MN from 110,000 barrels per day (BOPD) to 161,600 BOPD. Once complete, Enbridge North Dakota will have more than doubled its 2007 system capacity of 80,000 BOPD.

More good news is that Enbridge has no intentions of stopping at 161,600 BOPD and is actively working to gain support from interested shippers for the proposed Portal Reversal Expansion Project or PREP. As proposed, PREP would allow Enbridge to transport an additional 30,000 BOPD by 2011 and up to an additional 115,000 BOPD by 2013.



Details of Enbridge's Phase VI Expansion.  
Source: Enbridge Pipelines LLC - [www.enbridge-expansion.com](http://www.enbridge-expansion.com)

### North Dakota Statistics

	Aug-09	Sept-09	Oct-09
Average Daily Oil Production, BOPD	232,355	238,265	239,067
Average Daily Gas Production, MMCFD	266.66	259.76	253.04
Wells Producing	4,545	4,579	4,606
Average Rig Count	45	51	56

As of December 16, 2009, there are 77 active rigs in North Dakota.

[www.pipeline.nd.gov](http://www.pipeline.nd.gov)

### Prairie Rose Pipeline Nears Completion

An unexpected construction specification change has delayed the startup of the Pecan Prairie Rose Pipeline until Mid-January, 2010. The new 75 mile, 12 inch pipeline is designed to transport up to 80 million cubic feet of unprocessed natural gas per day from Mountrail County to an interconnect with the Alliance Pipeline near Towner, ND.

### Proposed Baker Storage Enhancement

Williston Basin Interstate Pipeline Company is developing a project to increase firm deliverability from its Baker gas storage field in eastern Montana. With current firm storage withdrawal rates of 115 million cubic feet per day (MMCFD), Williston Basin sees an opportunity to add an additional 125 MMCFD of firm withdrawal capacity, which would more than double the firm withdrawal rate from Baker. Along with the gas storage field upgrades, Williston Basin is planning a pipeline expansion to transport the increased, firm storage volumes to an interconnect with the Northern Border Pipeline in North Dakota. The project has a proposed in-service date of 2012 and an open season is expected in January 2010.



Source: Williston Basin Interstate Pipeline Co.

### Natural Gas Storage Explained

During the mid 1900's, natural gas grew in popularity as a winter heating fuel. As a result, natural gas markets began experiencing seasonal demand swings that needed to be managed using underground storage operations. Depleted natural gas fields are most often targeted for storage due to existing infrastructure and reservoir knowledge. During the summer months when demand is low, natural gas is injected into storage and when demand increases in the winter months, natural gas is withdrawn for consumer use.



### ND Pipeline Authority

State Capitol 14th Floor • 600 E. Boulevard Ave. Dept. 405 • Bismarck, ND 58505-0840

Phone: (701) 220-6227 • Fax: (701) 328-2820

E-mail: [jjkringstad@gmail.com](mailto:jjkringstad@gmail.com) • [www.pipeline.nd.gov](http://www.pipeline.nd.gov)

North Dakota Pipeline Authority  
State Capitol, 14th Floor  
600 E. Boulevard Ave. Dept. 405  
Bismarck, ND 58505-0840





## INDUSTRIAL COMMISSION OF NORTH DAKOTA NORTH DAKOTA PIPELINE AUTHORITY

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### » ABOUT PIPELINES

**"Pipelines are really the energy lifelines of almost every daily activity.** Pipelines play a role in everyone's lives and are essential to the nation's industries. Yet few people are aware of the work done by the country's 200,000-mile petroleum pipeline network that delivers the products that are integral parts of America's economy. It is a network that delivers the nation's crude oil and petroleum products (such as gasoline, jet fuel, home heating oil) reliably, safely, efficiently, and economically." ~ Pipeline 101

**To learn more** about pipeline operations, safety, construction, and more, please visit:



#### Supply Line Video



• Video provided by AOPL » [www.aopl.org](http://www.aopl.org)

**AOPL**  
Association of Oil Pipe Lines



# Thank You!

North Dakota Pipeline Authority

600 E. Boulevard Ave. Dept. 405  
Bismarck, ND 58505-0840

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Fax: (701)328-2820

E-mail: [jjkringstad@ndpipelines.com](mailto:jjkringstad@ndpipelines.com)



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[www.pipeline.nd.gov](http://www.pipeline.nd.gov)

